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MARCH, 1920

ADAM SMITH ON PUBLIC DEBTS

In olden times there lived a man whose body had the peculiar quality, however much it was cut to pieces, of coming together again as strong as ever. All the paladins of the time made trial of this unconquerable wonder, and all in vain. One of them cut off the head and hurled it into the middle of a river; another divided the trunk longways, another sideways, and others other ways; they cut off limbs and dug out organs at their pleasure—but still the bits ran together again like drops of quicksilver, and the man was unconquerable. Of such quality is the author of the *Wealth of Nations*. For nearly a century and a half he has been cut to pieces, and still the pieces have come together again, and the old Adam is as strong as ever.

To carry the fable further would be tedious. The moral will be obvious to any who will read *in extenso* the chapter on "Public Debts"—the last in the *Wealth of Nations* and the fitting crown of the whole work.

I. Historical Development of Public Debts.

The chapter begins as usual with a vigorous sketch of the historical development. As usual, also, the history makes the past live in the present. "The parsimony which leads to accumulation [*i.e.*, of treasure in war chests] has become almost as rare in republican as in monarchical governments. The Italian republics, the United Provinces of the Netherlands are all in debt. The canton of Berne is the single republic in Europe which has amassed any considerable treasure. The other Swiss republics have not."

In time of war—even in the pre-Adamite world—it was necessary to resort to debt. "The want of parsimony in time of peace imposes the necessity of contracting debt in time of war. . . . In war an establishment of three or four times the ordinary expense becomes necessary for the defence of the State; and

consequently a revenue three or four times greater than the peace revenue."

Such an increase of revenue is in general impossible, and, even if possible, is not possible in the time available. "The moment the war begins, or, rather, the moment in which it appears likely to begin, the army must be augmented, the fleet must be fitted out, the garrisoned towns must be put in a posture of defence; that army, that fleet, those garrisoned towns must be furnished with arms, ammunition and provisions. An immediate and great expense must be incurred, in that moment of immediate danger, which will not wait for the gradual and slow return of the new taxes. In this exigency the Government can have no other resource but in borrowing."

In the light of this passage, it is strange to find Adam Smith cited by Professor W. R. Scott as a supporter of the "all-tax" method, with the further implication that the tax revenue ought to be augmented three- or four-fold.[1]

The next step in the argument is to show that the necessity of borrowing brings with it, *i.e.*, in a commercial state of society, the facility of doing so. "A country abounding with merchants and manufacturers necessarily abounds with a set of people who have it at all times in their power to advance, if they choose to do so, a very large sum to Government. Hence the ability in the subjects of a commercial State to lend."

"Commerce and manufactures, however, can seldom flourish long in any State which does not enjoy a regular administration of justice; in which the people do not feel themselves secure in the possession of their property. . . . Commerce and manufactures, in short, can seldom flourish in any State in which there is not a certain degree of confidence in the justice of the Government." This confidence necessary for commerce under ordinary conditions makes the merchants trust the Government on extraordinary occasions. They are willing to lend for defence. Also, they find the lending profitable. By lending to the State they increase rather than diminish their own credit. Their Government securities are transferable often at a premium. This readiness to borrow and willingness to lend make the accumulation of treasure hard and that of debt easy. Then follows a sentence by way of introduction to the further historical development which has often been quoted as if it were the prophetic conclusion. "The progress of the enormous debts which at present oppress, and will in the long run probably ruin, Europe—*has been pretty uniform.*" The last clause has been left out, and ridicule has

[1] *Cf. Economic Problems of Peace after War.* Second Series, p. 54.

been thrown on the prophecy because the great Napoleonic War debt did not ruin England.

Although the sentence is an introductory *obiter dictum,* it seems as if in our time the length of run has been sufficient to bring the prophecy very near fulfilment. Economic ruin admits of varied interpretations, but most of them apply at present to the greater part of Europe, and most of the ruin is to be ascribed to the piling up of debt. But for the debt the nations could not have carried on so long in war. It is the burden of the debt that makes it so difficult to carry on in peace.

The "pretty uniform" progress of the debts of Europe has been marked by two methods. "Nations, like private men, have generally begun to borrow upon what may be called personal credit, without assigning or mortgaging any particular fund for the payment of the debt; and when this resource has failed them, they have gone on to borrow upon assignments or mortgages of particular funds." When the mortgaging method is resorted to it may be in one of two ways. Sometimes the assignment of the mortgaged revenue is for a short time—a year or a few years; sometimes for perpetuity. In the first case, the fund was supposed to pay within a limited time both principal and interest. In the second case, the fund was sufficient only to pay the interest —or a perpetual annuity equivalent to the interest—the Government being at liberty to redeem the annuity at any time by paying back the principal. When money was raised in the first way it was said to be raised by "the method of anticipation"; when in the other by "perpetual funding or, more shortly, funding."

There follows a very graphic history of the progress in England of the method of anticipation—written in the grand realistic antiquarian manner, with just the odour of irony in quoting the official accounts down to ¼*d.*, ½*d.* and ¾*d.*

The particular mortgages were succeeded by the first general mortgage of several different taxes. The first general mortgage was succeeded by the second, and so on up to the sixth. "The sum borrowed on the sixth was £1,296,552 9*s.* 11¾*d.*" More and more taxes were rendered perpetual, and accumulated into another common fund, called the general fund, for the payment of certain annuities, the whole sum, about three-quarters of a million, being quoted down to 10½*d.*

"In consequence of these Acts, the greater part of the taxes, which before had been anticipated only for a short term of years, were rendered perpetual as a fund for paying not the capital, but

the interest only, of the money which had been borrowed upon them by different anticipations."

Had the method of anticipation been followed strictly, the debts borrowed to meet extraordinary expenses would have been extinguished in short periods and the corresponding revenues liberated—if only the Governments had paid attention to not overloading and not anticipating new debt before the old was repaid. "But the greater part of European nations have been incapable of those attentions." They have overloaded even on the first anticipation and have anticipated a second and a third time before the expiration of first anticipation.

The fund derived from the anticipation of taxation became in time no more than sufficient to pay the interest, leaving nothing for the extinction of the principal. "Such improvident anticipations necessarily gave birth to the ruinous system of perpetual funding."

When people have once become accustomed to this ruinous practice, it has been universally preferred to the simple and safe method of definite anticipation. "To relieve the present exigency is always the object which principally interests those immediately concerned in the administration of public affairs. The future liberation of the revenue they leave to posterity."

The outstanding merit of this application of the historical method is that it shows the intimate connection of public debt and taxation. Every increase of public debt means, some time or other, an increase of taxation or a lessening of the revenue available for other services.

II. Sinking Funds.

Next follows the examination of the sinking-fund policy. Again the historical method is applied.

A sinking fund has two origins. On the return of peace the continuance of the war taxes, or of some of them, will yield a surplus revenue after meeting the ordinary expenses of the State. It may be observed in passing that Adam Smith, although showing that debt is always preferred to taxation, is not an "all-debt" man. He knew very well historically that war also increases taxes. Anticipation of old taxes is not enough. New taxes must be put on and also anticipated. There will always be some pretence, even after the ruinous system is in full swing, of making the tax system pay at least the interest.

If, then, the new taxes (with the old) yield a surplus of revenue, "it may perhaps be converted into a sinking fund for

paying off the debt." Perhaps. But even if there is a surplus, it will probably be altogether inadequate for paying off the debt "within any period during which it is likely that peace may continue." Adam Smith had not anticipated the discovery by Mr. Wilson that war could be abolished by a League of Nations.

The other real source of a sinking fund is a fall in the rate of interest. Here, also, the yield is meagre. "Hence the usual insufficiency of such funds."

Not only are sinking funds in general too small for the purpose, but in general, also, such as they are, they are liable to be raided. During the most profound peace various events occur which demand an extraordinary revenue. Every new tax is felt more or less. There is always some murmuring at new taxation, especially if the old taxation is already high. A momentary suspension of the payment of the debt occasions no murmurs or complaints. To borrow of the sinking fund is always an obvious and easy expedient for getting out of the present difficulty. The greater the debt, and the greater the need for a sinking fund, so much the more likely—so much the more certain—is it to be misapplied for extraordinary expenses in peace. "Nothing but the necessities of a new war . . . can induce the people to submit to a new tax. Hence the usual misapplication of the sinking fund."

There follows a detailed account of the history of the reduction of the public debt of Britain "since we had recourse to the ruinous system of perpetual funding," with the general result that the reduction has never borne any considerable proportion to the accumulation in time of war. Hence the meticulous irony of antiquarian is carried into the quotation of sums down to one-twelfth of a penny. "During the profound peace of eleven years little more than ten millions of debt was paid; during a war of seven years more than one hundred millions was contracted."

According to these figures, debt was paid off at the rate of less than a million a year in peace and accumulated at more than fourteen millions a year in war time. The corresponding proportion of our last years of peace to the years of war just concluded gives about one to four hundred.

"The new debt," he says, "which will probably be contracted before the end of the next campaign may perhaps be equal to all the old debt that has been paid off." Accordingly, he concludes that "it would be altogether chimerical to expect that the public debt should ever be completely discharged by any savings that are likely to be made from the ordinary revenue as it stands at present."

III. Public Debt as Capital.

Adam Smith next examines the idea that the public funds of the different indebted nations of Europe, particularly those of England, are equivalent to an addition to the other capital of the country by means of which its trade is extended, its manufactures are multiplied, and its lands cultivated and improved much beyond what they could have been by that other capital only. He allows that the people who advanced their capital to the State get in return an annuity on the public funds, in most cases of more than equal value. The lenders to the State themselves suffer no loss. They can sell their war bonds or they can borrow on them. But the new capital which they acquire in this way must already have been in the country, and, being capital, must have been employed productively. This capital, from maintaining productive labour, has been turned into maintaining unproductive labour—from the productions of industry to the destructions of war.

The foundation of the argument is that in any country at any time there is only a limited amount of actual capital, and that if a large part is turned from peace industries to war industries a good deal must be destroyed. The capital used in peace reproduces itself—normally with some profit. The capital used in war does not reproduce itself—it must be maintained from other funds.[1] If the war continues long enough and the expenses are met by borrowing, in time the greater part of the capital of the country will be wasted.

If, on the other hand, the expenses of the war are met out of taxes, a certain portion of the revenue of private people is only turned from maintaining one species of unproductive labour to maintaining another. Some part of what they pay in taxes, it is true, might have been used in providing new capital. Thus the public expense of war when defrayed from taxes no doubt hinders more or less the further accumulation of new capital, but it does not necessarily occasion the destruction of any actually existing capital.

The argument as thus developed may be quoted to support the contention that Adam Smith was an "all-tax" man. But, as already shown, on his view the all-tax method is impossible, and, besides, he takes account of the fact that funding makes the

[1] Compare the argument in *Wealth of Nations*, Bk. IV. Ch. I.: "In the midst of a most destructive foreign war the greater part of manufactures may flourish greatly; and on the contrary they may decline on the return of peace. They may flourish amidst the ruin of their country, and begin to decay on the return of its prosperity."

present taxation so much the lighter, and private revenues being so much less burdened, accumulation is so much less hindered. "Under the system of funding the frugality and industry of private people can more easily repair the breaches which the waste and extravagances of Government may occasionally make in the general capital of the society. Funding destroys more old capital, but gives less check to new accumulations."

It is, however, only during war that the funding system has these compensating advantages. If the people had been taxed more during the war, they would have saved so much less, no doubt; but after the war their revenues would have been liberated, and the rate of making new capital could have been increased.

If, indeed, war could have been met altogether out of taxes, it would not of necessity have meant the destruction of any old capitals, and peace would have occasioned the accumulation of many more new.

There is one further advantage of paying for war by taxes, namely, that wars would in general be more speedily concluded and less wantonly undertaken. On this text much might be written arising out of our latest war, and on the possibilities of avoiding or lessening the chances of war in the future. The application made by Adam Smith himself at first sight seems overstrained even for his own times. He says that the peace revenue of Great Britain amounts to ten millions a year. "If free and unmortgaged, it might be sufficient with proper management and without contracting a shilling of new debt to carry on the most vigorous war." Taken in connection with the general argument, apparently this means that the tax revenue, if freed from the burden of former funding, could pay the current expenses of war. It is remarkable that this apparently absurd estimate was confirmed during the latter period of the great Napoleonic War. Actually, but for the payment of interest on the debt during the last ten years the expenses of that great war were more than met out of the revenue.[1]

IV. The Right Hand Paying the Left in the Interest on the Public Debt.

"In the payment of the interest of the public debt, it has been said it is the right hand which pays the left. The money does

[1] Gladstone showed that from 1806–1815 the annual tax revenue apart from the interest on the debt (including the pre-war debt) actually exceeded all the government expenditure (including the charge of the gigantic war) by £7,000,000. *Financial Statements*, p. 17.

not go out of the country. It is only part of the revenue of one set of the inhabitants which is transferred to another; and the nation is not a farthing the poorer."

This part of Adam Smith's argument is of special interest at the present time owing to the revival of this old simple method of extinguishing the real burden of a national debt.

"This apology," he says, "is founded altogether on the sophistry of the mercantile system." The central fallacy of that system on his view consisted in looking only to the money and not to the things the money stands for.

But, apart from this fundamental mistake, this hand-to-hand fallacy implies, *besides*, that the whole public debt is owing to the inhabitants of the country, "which happens not to be true, the Dutch, as well as several other foreign nations, having a very considerable share in our public funds."

This qualification also happens to be of singular importance in our day owing to our indebtedness to the United States. "But, though the whole debt," the argument proceeds, "were owing to the inhabitants of the country, it would not on that account be less pernicious."

It is quite clear from the context that Adam Smith did not mean by this expression "not less pernicious" that an internal loan was exactly on all fours with an external loan. The external loan, "even on the principles of the mercantile system"—to recall his usual method of argument—imposed certain peculiar burdens, but perniciousness was none the less to be found in the internal loans on other principles that look beyond the money to the "lands, houses and consumable goods." Some of the best English writers on commerce, as he says in another place, set out by distinguishing between the real things and the money measures of them, but in the course of their reasonings the things slip out of their memory. (*Cf.* Book IV., Chap. I., Conclusion.)

When we look beyond the money we are brought down again to the real burdens of taxation. The interest on the debt can only be paid out of taxes.

Suppose, first, the taxes smite the owners of land. Naturally, the proprietor of a landed estate, for the sake of his own revenue, is interested in keeping it in as good condition as possible by all sorts of improvements, etc. But by different land taxes his revenue may be so diminished, and by the rise in the prices of the necessaries and conveniences of life by other taxes the real value of the revenue may be so much more diminished, that the

landowner may find himself altogether incapable of making or maintaining these expensive improvements.

That the taxes on land and the rise in prices have crippled the powers of the present British landowners as regards the maintenance of their estates is shown by the unprecedented sales that are being made. Whether the new men will do as well by the old acres is open to question. The old English system, in spite of its theoretical anomalies, had very great merits. By no writer has the old English system been more appreciated than by Professor Henry C. Taylor,[1] the leading authority on agricultural economics in the United States. "That Americans may profit from the experience of their British cousins should be evident from the foregoing pages."

The old English landlord was content with a very moderate rate of interest on capital invested in the land, and the relations between landlord and tenant were very satisfactory, as shown by the practical fixity of tenancies nominally yearly.

The other principal source of revenue from taxation is capital. Adam Smith only considers the effects of taxing the revenue from capital by the different taxes imposed on the "conveniences and necessaries of life." It must be remembered that on his view taxes on necessaries were transferred to capital. The rise in prices also diminishes the real value of the revenue from capital. The consequence of this fall in real revenue is to send the capital out of the taxed country to more favoured regions. In our day capital has to bear many and heavy direct taxes not dreamed of in the time of Adam Smith. The encouragement to removal is so much the greater. At present this danger is postponed or mitigated by the extraordinary profits derived from the inflation, but if and when the inflation is checked, the real burden will be felt, the mobile capital will be transferred, and the fixed and non-exportable capital will not be maintained, and still less augmented.

Since the time of Adam Smith both the inducements to the export of capital and also the facilities for such export have largely increased.

Apart from export, there is another danger. "To transfer from the owners of these two great sources of revenue—land and capital stock—from the persons immediately interested in the good condition of every particular portion of land and in the good management of every particular portion of stock, to another set of persons (the creditors of the public who have no such par-

[1] See *Agricultural Economics*, Chapter XIII.

ticular interest) the greater part of the revenue arising from either must in the long run occasion both the neglect of land and the waste or removal of capital stock."

Here, also, the general argument is strengthened by the present state of affairs. The economic principle of reward according to effort has been weakened both by subsidies and by controls.

"The practice of funding has gradually enfeebled every State which has adopted it." Italy, Spain, France and Holland are cited by way of illustration, and the citation is concluded with a question: "Is it likely that in Great Britain alone a practice which has brought either weakness or dissolution into every other country should prove altogether innocent?"

Adam Smith fully acknowledges that Great Britain was in his day in a stronger position than these other countries. Its system of taxation was better. At the conclusion of "the late war" (1755–62)—"the most expensive that Britain ever waged"—her agriculture, manufactures and commerce were as flourishing as ever. "Great Britain seems to support with ease a burden which half a century ago nobody believed her capable of supporting. Let it not, however, be rashly concluded that she is capable of supporting any burden; nor even be too confident that she could support, without great distress, a burden a little greater than that which has already been laid upon her."

It is sometimes argued that the Napoleonic Wars disproved this statement. On the contrary, they confirmed it. The point was that, though the British system of taxation in the time of Adam Smith was relatively good, if more revenue was needed worse taxes must be resorted to. The taxation of the Napoleonic period was incredibly heavy, both directly and indirectly. In spite of the industrial revolution, the war was followed by a prolonged period of depression.

V. The Redemption of Public Debts.

"When national debts have once been accumulated to a certain degree, there is scarce, I believe, a single instance of their having been fairly and completely paid." If the liberation of the public revenue has ever been brought about, it has been by bankruptcy—"sometimes an avowed bankruptcy, though frequently by a pretended payment."

The pretended payment is by raising the denomination of the coin. Every sixpence is called a shilling and the debt is halved, and so on. The modern development of "representative" money

has vastly increased the facilities for raising the denomination. Paper money of all kinds, once it is *de facto* inconvertible, can be diluted indefinitely.

In our day this old method of pretended payment is finding favour. The greater the inflation, so much less is the burden of the old money payments. Such is the argument. The only flaw is that the progressive evils of progressive inflation are forgotten. On these evils the present writer has written elsewhere.[1] Adam Smith had no doubt even on the lesser evils of depreciated coins. "When it becomes necessary for a State to declare itself bankrupt, in the same manner as when it becomes necessary for an individual to do so, a fair, open and avowed bankruptcy is always the measure which is both least dishonourable to the debtor and least hurtful to the creditor."

VI. Imperial Taxation and Public Debt.

Adam Smith was of opinion that the revenue of Great Britain could never be sufficiently augmented so as to pay off entirely the old debt. Certainly since his time the debt has never been altogether extinguished, although but for other wars the old war debts might have been paid off, that is to say, with courageous taxation.

But Adam Smith did not contemplate national bankruptcy for Britain, either open or pretended. He looked for the necessary augmentation of revenue to his *Project of Empire*. He thought that the British system of taxation might be extended to all the parts of the Empire, coupled with corresponding representation in a truly Imperial Parliament. This *Project* opens out a large field for present-day suggestions, which can only be here alluded to without further comment.[2]

Conclusion.

The main object of the present paper has been to put the great argument of Adam Smith on *Public Debts* in such a form as to suggest an application of his fundamental ideas to the difficulties of the present situation. The most urgent need of the present time is that those who have the practical guidance of financial policy in the principal nations of the world should abandon the methods of piecemeal opportunism which were, per-

[1] *War Finance* (1917; 2nd edition, 1918); *Inflation* (1919).

[2] This part of Adam Smith's argument has been expounded in the present writer's *Project of Empire: a Critical Study of the Economics of Imperialism with special reference to the ideas of Adam Smith* (1909).

haps, justifiable politically during the war, and should have the courage to recognise fundamental economic principles and their consequences. Except incidentally by way of illustration I have made little attempt to point the moral. With the mark varying between a halfpenny and a penny, with the American exchange below 3.50 dollars to the pound, and gold over £6 per oz., there is little need for particularisation.

J. S. NICHOLSON

BRITISH EXPORTS AND THE BAROMETER

Two of the most familiar diagrams in economics are that setting out the value of the exports of United Kingdom produce per head of the population in each year, and that setting out the general level of wholesale prices as recorded by Sauerbeck's index-number. Each of these two curves shows a large and somewhat irregular fluctuation, in general accord with the other indications of industrial activity and depression, such as the bank rate, unemployment percentages, pauperism, marriage rate, consumption of beer, and number of larcenies.

The general agreement is subject to marked exceptions in particular years, and the length of the separate fluctuations varies greatly (successive minima of export values coming at intervals of six, twelve, six, eight, seven and eight years). Moreover, each of the two curves shows general changes of level, accomplished over long periods and blurring the effect of the cyclical fluctuations. Thus export values per head fluctuated about the same general level from 1820 to 1840; the general level then rose rapidly for the next twenty-five or thirty years, remained stationary for the next thirty, and started to rise rapidly again from 1900 to 1913.

The correlation between the curves of export values and of prices is to some extent due simply to the presence of a common element in each. Values depend on price as well as quantity; in so far as the Sauerbeck index is a true index of prices, any change of it tends to be reflected in the export values. An increase in the latter may mean merely an increase of prices and not in the volume of exports. A great many attempts have been made at various times to correct the statistics of exports (and imports) by excluding the effect of price variation and determining the actual quantities of exports (and similarly of imports) in each year. So far as I know, however, attention has not hitherto been drawn to the results of simply dividing the export values per head for each year, by the corresponding Sauerbeck number for that year, and setting out the quotients in the form of index-numbers.

These new index-numbers are given in the attached table and chart, for the period from 1820 to 1913. They yield a curve of rather remarkable character and regularity. A ruler laid along

the line joining the depressions of 1847 and 1893 practically passes through two other points of depression, 1862 and 1877–8, and shows above it three successive double waves, 1847 to 1862, 1862 to 1877–8, and 1877–8 to 1893, each of almost the same length (between fifteen and sixteen years), and the same character (with a minor depression about half-way). Fifteen years back brings us to another depression in 1832; sixteen years forward to the last one in 1909. Each of these periods shows, like the three central ones, a double wave (with depressions about half-way through); the only difference is that in each case the general tendency of the graph is altered, and that the half-way depressions appear relatively deeper. Broadly, we see in the whole period of seventy-seven years, from 1832 to 1909, five main fluctuations of practically the same length and character. A cycle of somewhere between 15·2 and 15·4 years would exactly fit all the depressions.

The size of the waves increases from the beginning to the end of the period covered by the chart; this does not, however, indicate any greater violence of fluctuations, as the whole scale of the export trade is growing. If the figures were expressed logarithmically, the waves would be far more nearly equal.

A periodic fluctuation of this regularity is altogether exceptional in economic records. Its closest parallel is to be found in the seasonal fluctuations of trades, such as building and printing, which are directly dependent on climate and the social habits to which the climate gives rise. It does not suggest sunspots, partly because the length of the fluctuation is different, but even more because it is far more regular than the sunspots. But it does suggest the operation of some physical factor —in the earth or its atmosphere—with a periodicity almost as strong as that of the tides. It will be desirable to consider first what it is precisely that the new index-numbers can be taken to represent.

They do not represent the volume of exports. To get that we should have to divide the export values by a price index-number based only upon the prices of such classes of goods as are exported.[1] The new index-numbers, in so far as the Sauerbeck index is correct, represent simply the purchasing power of British exports. Since this purchasing power is used in general only to

[1] Comparison of the new index with the estimates of export *volumes* from 1890 onwards, as given in the third *Fiscal Blue Book*, shows general but not complete agreement. The movements of the new index, though strictly it represents only the purchasing power of the British export trade, correspond also, as a rule, to variations in the scale of the trade.

purchase, the fluctuations of the index-numbers should reproduce fluctuations in what is purchased by British exports. Broadly, British foreign trade amounts to sending out manufactured articles and coal in order to purchase on the one hand gold and on the other hand crops of all kinds (grain, cotton, sugar, jute, oil-seeds) or livestock (and their produce) which are dependent on such crops. The proportion of manufactures among the imports, though growing, is still small. The suggestion here put forward for consideration is :—

1. That the British export figures treated in the way described record indirectly changes in the world's output of gold and of growing crops, the new index tending to rise as this output increases, and to fall as it diminishes.

2. That the apparent periodicity of the figures is a true one, and arises from some physical cause or combination of causes, whether terrestrial or super-terrestrial, having a regular fluctuation in a period of between fifteen and sixteen years, or some factor thereof, and causing a corresponding fluctuation in the productivity of the earth.

One part of this hypothesis can at once be tested. The output of gold is known and its history is simple. After remaining at a low level up to about 1845, the world's production of gold then increased eight or nine times by 1852–3, remained at its new level till about 1892–3, when it began a new rapid rise which, subject to a relapse in the time of the South African War (1900–3), continued to the outbreak of the Great War in 1914. In so far as an increased output of gold simply goes into the circulation and contributes to raise prices, it is presumably already discounted in the new index (for this represents a fraction with the Sauerbeck price-number as denominator). A substantial proportion of the gold output, however, serves industrial purposes and is thus a commodity whose output should affect the new index.

Simple inspection suggests at once that there is a connection between the output of gold and the new index-number. The first great rise in the world's output of gold (from 1845) at once turned upwards the course of British exports as shown in the new index. The second great rise from 1893 onwards repeated the effect. The South African War, from 1899–1902, checked the output of gold and its export abroad; this check is reflected in the depression of the new index curve. In the last years before the Great War, as gold steadily increased, exports, even as corrected for change of prices, continued to soar. It would no doubt be

possible to make arithmetical allowance for the variation in the gold output, and so eliminate its influence, leaving a curve which, on the hypothesis advanced above, would record simply the fluctuation of the world's crops. It is clear that the elimination of gold would have the effect of raising the curve relatively in the years 1899-1902, and lowering it in the period subsequent to 1895; the last sixteen-year period would thus fall into line with the rest of the curve. It would also bring the general course of the curve before and after 1845 more nearly into line.

For the next stage in the examination the necessary material is at the moment lacking, or has not been collected in a form allowing its use. It is indeed a matter of common observation that the Indian peasant's demand for cotton piece goods is directly dependent on the success or failure of his harvest. But there are no records of the crops of the world as a whole, or even of a large part of them, covering a long period of years, and making possible the construction of a crop curve to set beside the curve of exports. For the moment I must be content to cite a few familiar and significant facts as to particular countries. In India famines have occurred in 1861, 1877, 1891-2 and 1907-8, that is to say, in each case, at, or just before, one of the minimum points of the curve. There have also been other famines, some bearing a similar relation to other depressions in the curve, *e.g.*, 1854, 1866, 1897, and some for which no such connection is apparent. In the United States, for which continuous records prior to 1866 are lacking, there have been very well marked shortages in the wheat crop in 1893 and 1907, with a less well marked one in 1876. The corn crop and the cotton crop have generally shown a depression at or about the same time. Here, again, there are other cases of deficient harvest, some corresponding with minor depressions in the export curve, some showing no apparent connection. Clearly the harvests of each particular country, or of any one kind, are each affected by many different causes. All that can be said for the moment is that the crop results are, on the whole, consistent with the suggestion of a single general cause affecting the whole world at intervals of fifteen to sixteen years. They give hope that by a wide enough collection of data the local and sporadic fluctuations would be flattened out and that a characteristic common fluctuation would be revealed.

It may be suggested that if the hypothesis under consideration is correct (that the British exports to the world as a whole, corrected by the general index of prices, are determined by the crops of the world as a whole), then a similar relation should be found between the exports to any particular country and the

crops there. Some provisional calculations as to India and the United States of America suggest that some relation of this kind can be found there. But the application of the present method to the trade and production of a single country is difficult, for several reasons. In the first place, though the Sauerbeck numbers may, and probably do, afford an adequate index of price changes for all commodities taken together, they may not be at all accurate in respect of the commodities sent to, or purchased from, a single country. In the second place, trade is international, and is fluid under the influence of capital seeking investment.

The United Kingdom, throughout the period under review, has been a wealthy country which was exporting capital and developing the rest of the world. The British manufacturers, in a year when they export more than usual, may use this power not to bring the increased supplies to this country, but to transfer it from one country to another. The fluctuation shown in the export figures is visible also in the imports, but is not nearly so well marked. The important thing to study is not the imports, whether from particular countries or as a whole, to the United Kingdom, but the total world production. The value and validity of the new method (if any) lies in its generality; one should not expect to find it applicable, without many adjustments, to the case of particular countries.

The relation suggested as being shown in the chart is between British exports as a whole and the agricultural productivity of the world as a whole. In a specially fruitful year (when the crops of the world as a whole are above the average) the producers of the crops, or those to whom they sell, will make a specially large demand for articles which they do not produce, *i.e.*, manufactured goods. They may get these from the United Kingdom, and so stimulate exports to themselves; or, in any particular country they may get the goods from the manufacturers in that country. The latter manufacturers will in that case be less able than before themselves to make for other markets, and will thus increase the demand upon the United Kingdom and the exports from the United Kingdom, though not necessarily to their own country. Once the manufactures of any country are so large a proportion of the total manufactures of the world, as is the case with the United Kingdom, one may expect to find fluctuations in agricultural production reflected in them directly or indirectly. At bottom, the curve shows the relation not between the United Kingdom and the world, but between the manufacturing activity of the world (as measured by the British sample) and its agricultural activity.

It remains to consider the possibility of relating the apparent period of fifteen odd years in the corrected export figures directly to some physical phenomena. If any such connection should be established, it would almost dispose of the necessity of examining crop records; the connection between meteorology and trade can hardly be through anything except agriculture. A full discussion of this problem is clearly impossible here. I can only call attention to certain significant facts.

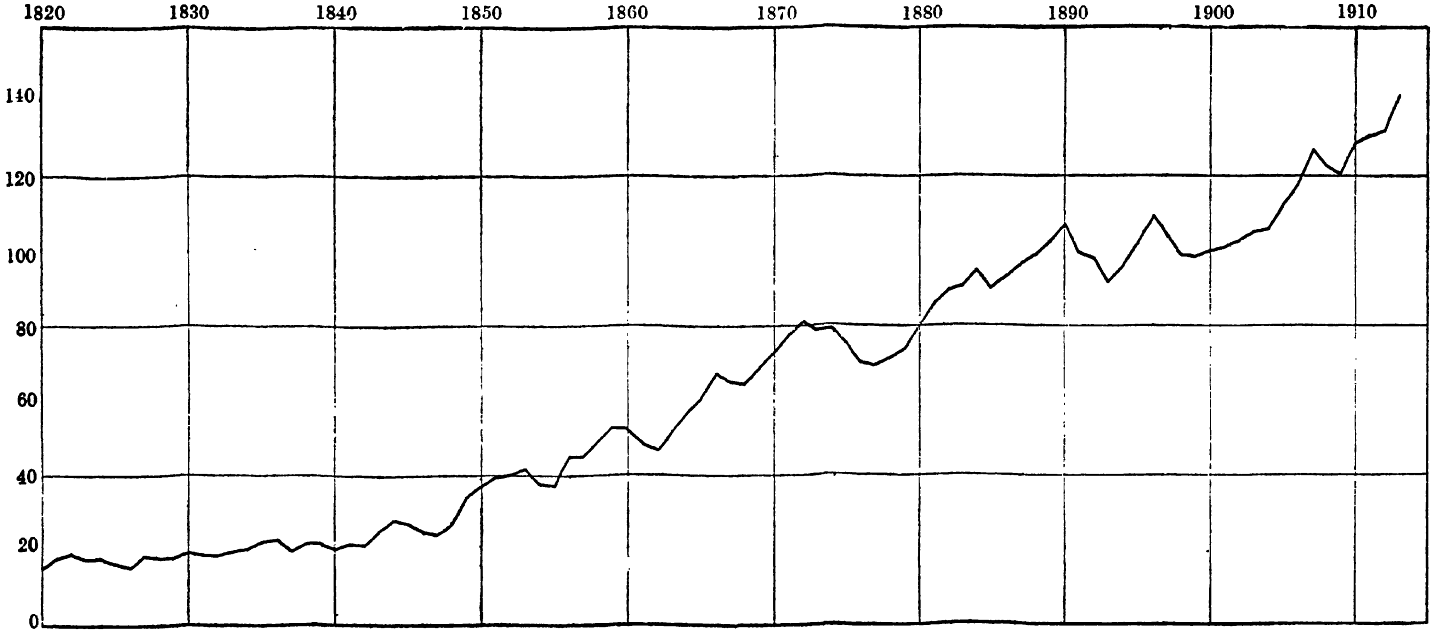
Records of barometric pressure in many parts of the world, running back in some cases to 1842, were collected and published by the Solar Physics Committee in 1908. Information for later years has been supplied to me by the Meteorological Office. I have thus been able to prepare a substantially continuous set of figures to represent the average barometric pressure for each year from 1842 to 1913 in India, Australia and South Africa; these figures are given in column 6 of the table. It will be seen that they show unmistakable minima at the years 1848-9, 1862, 1878-9, 1892-3, 1909-10. There are many minor fluctuations, but, apart from an exceptional period of sustained low pressure between 1870 and 1875,[1] there is no other minimum of comparable importance.

The significance of this series of years in relation to the curve shown in the chart is obvious. Practically the five outstanding minima of barometric pressure coincide with the outstanding minima of the new exports index. More accurately, barometric pressure reaches a minimum in the year or years immediately preceding a marked rise of that index. A low barometer means abundant rain, and rain, in the countries under review, means in general large crops. On the hypothesis advanced above, a year of very low pressure should be followed, after the necessary interval for the growth, harvesting and marketing of the crops, by a marked rise in the new index, representing the purchases made by means of British exports. This is exactly what the figures show as happening. The last three minima of the barometric series, 1878-9, 1892-3, 1909-10, are particularly striking, and have an unmistakable family resemblance. In each case they follow on a year of exceptionally high pressure—1877, 1891, 1908—meaning drought and, in India, famine.

[1] This period is a quite exceptional one in some other barometric records also, *e.g.* at Santiago, where maxima never before or since approached were then recorded. It also happens to be exceptional in the recent history of sun-spots, but I am not sure how much importance attaches to this. The inclusion of other regions, such as North America and Russia, diminishes the prominence of this period.

EXPORTS OF UNITED KINGDOM PRODUCE PER HEAD DIVIDED BY SAUERBECK PRICE INDEX.

(The quotients are shown as index numbers, with 1900=100.)



The figures given, strong as is their general significance, present many points for criticism and explanation. It may be objected, for instance, that the barometric figures relate only to one region of the world. Again, though their minima keep on the whole fairly near to the export minima, the coincidence is not perfect. The barometric series is less accurate than the other; in place of successive equal periods of fifteen to sixteen years, it presents what looks like an alternation of shorter and longer periods: 13–14, 16–17, 13–14, 16–17. This suggestion is confirmed by the fact that 1832–3 is by famine records known as a time when drought yielded to rain in India; this gives another 16–17 year period. These two criticisms—as to the limitation of the area covered and the lesser accuracy of the barometric period—will be found to some extent to explain and thus to answer each other.

The barometric figures hitherto given have been limited to the Indian Ocean for a variety of reasons. In the first place, records prior to 1870 are very rare in either North or South America. In the second place, the effect of rainfall upon crops is not uniform throughout the world; in some countries, such as the United Kingdom and parts of the United States, heavy rain may be unfavourable. Though on balance the "rain-loving" districts are clearly now the most important, the existence of the other countries complicates the problem. In the third place, South America includes a number of stations whose barometric conditions are known to be closely but *inversely* related to those of the Indian Ocean; there is a see-saw by which, when pressure is exceptionally low in one of the two regions, it is almost invariably at a maximum in the other. To add together the Santiago and the Bombay readings, which always move in contrary directions, and then to average the results would be an obviously nonsensical proceeding; there is no simple way of showing their continued effect. In addition, however, to the Indian stations (denoted in the Solar Physics Report by the position sign +) and the South American stations (–), there are many others, including all those in North America, which do not belong definitely to either camp; the most that can be said of them is that they are –?, or ±. These it has seemed worth while to summarise.

The mean barometric pressures, derived from seven North American stations from 1873 to 1913, are given in column 7 of the table. If these are combined with the figures for India, Australia and South Africa, weighting the latter in proportion to the size of the region and its greater importance both as an

export market and producer of raw materials,[1] a series of figures is obtained with outstanding minima at 1878, 1893 and 1909, that is to say, exactly at the critical points of the new index.

This is a very interesting result. There can be no question of the validity of the barometric series already given for the Indian region or its connection with crop production. The successive periods in this region are not absolutely equal; they tend to be alternately longer and shorter than the average of just over fifteen years. The minimum and the recovery, whether we consider crops or the barometer, tend in India to come too late at the 1877–9 crisis, and too early at the next one—1891–3. In the case both of crops and of the barometer, the bringing in of North America corrects the inequalities and makes the final result nearer to that shown in the new index. It pulls forward the date of one barometric minimum from 1879 to 1878 and postpones the next one from 1892 to 1893. So, too, in crops, North America is alternately ahead of and behind India.

So far as the inquiry has gone, it suggests that the more general we can make the barometric and the production figures, the more closely will their main fluctuation correspond with that of the new exports index. The inquiry, of course, is not complete. But India, Australia and South Africa, which appear to be the dominant factor, cover nearly a quarter of the total exports from this country, and are probably even more important as the sources of crops. North America covers another 15 per cent. of the exports. No other single region of the earth has comparable importance for the present purpose.

While the barometric statistics collected in this article seem undoubtedly to support the suggestion arising from the export statistics, of a periodic fluctuation with an average length of something over fifteen years, it is necessary to admit that no period of this length appears to have been recognised by meteorologists hitherto. There is a bewildering variety of fairly well established meteorological periods in various parts of the earth and the sun, ranging from 78 and 11·1 years for the sun-spots, and about 5 years for the temperature of the North Atlantic and the wind at Southport, down to $3\frac{3}{4}$ years for the solar protuberances and some meteorological phenomena, and $2\frac{3}{4}$ years for many others. It is clear that if the periodicity suggested in this article is a true one, it must result from the combination of two or possibly more separate movements. There is no want of material from which to construct hypothetical combinations. As

[1] I am myself inclined to give India, Australia, and South Africa double the weight allowed to North America. So long, however, as the former are given some more weight than the latter, the precise amount matters little.

a pure speculation I may say that to myself the barometric series for the Indian region suggests a cycle of $2\frac{3}{4}$ years deepened by some special cause, perhaps a five-year cycle, at every fifth or sixth revolution. I may also point to an indication in the barometric figures, of a tendency for the North American and Russian stations (described as $-$? or $\pm$) to move with the Indian stations (+) at or about the critical points of the fifteen-year cycle (1878, 1893, 1909) and to move inversely at intervening epochs (1885 and 1902). These doubtful stations appear alternately positive and negative. They are not neutral between Bombay and Santiago, but are regular turncoats, and when at intervals of fifteen years they join the former, a critical minimum results.

If some such combination of cycles is at work, it is, of course, possible that their periods fit only roughly and not accurately. In that case, after being for a time roughly in gear with one another, the cycles may draw apart, and the manifestations of the last seventy years may not be repeated. Even if the hypothesis here advanced is correct, it does not without much further examination afford a basis for prophecy.

The inquiry at this stage becomes purely meteorological and cannot be carried further within the limits of an article. I may, however, before leaving the subject, point out that there is nothing in the figures adduced to suggest the direct operation of the sun-spots. It is possible that the sun-spots, by leading economists to look always for an eleven-year period in mundane affairs, have hitherto obscured rather than enlightened the problem. The nature of their influence on the weather is still problematic. Apparently they have not any proved connection with the radiant heat of the sun. Nor are they what the uninitiated would call really regular in their appearance. Since 1816 successive sun-spot maxima have come at intervals of 14, 7, 11, 12, 10, 13, 10 and 14 years. The sun-spots have a periodic law which they obey, but their behaviour under it is very much like that of a small dog taking a walk with his master. The man plods on steadily; the small dog will always be somewhere within hail of him, but at any particular moment may show himself a quarter of a mile ahead or a hundred yards behind. So the sun-spot maxima are sometimes a year or two before their proper time and sometimes a year or two behind it, though ultimately they never get very far away from it.

Here I must leave the matter. I cannot profess to have done more than to put forward a hypothesis for criticism. It is possible that further examination will show that the curve of the "new exports index," despite its superficial beauties, is a sham, and will destroy the hypothesis which I have put forward as to its meaning.

But, with the regular rise and fall of the curve before one, it is hard to believe this. If the figures given survive examination, and connection can be made for them either with the productivity of harvests or with meteorological phenomena, several results of some interest will have been attained.

It will not be news to economists to learn that our trade depends upon the productivity of other nations, but they may welcome an ocular demonstration of truths which statesmen have so often conspired to forget. It will be of interest even to economists to confirm the value of the Sauerbeck index-number, and to show, if it is thus shown, that the growth of exports is apparently governed by a pull from the other side, rather than by conditions in this country.

Finally, the suggestions made above, if proved, establish beyond question the meteorological factor in trade fluctuation, in agreement with the principles, though not with the details, of what has been written on this subject by Professor W. S. Jevons and by Mr. H. S. Jevons after him. It is necessary to add that this would establish climatic variations as one cause, not as the sole or perhaps even the main cause, of cyclical fluctuation of industry. The state of the export trade affects employment and wages, but does not dominate them. The times of greatest hardship to the population as a whole generally fall near the times of diminished exports, but do not always do so. There are some causes of fluctuation—financial, industrial and social—clearly independent of the climate and the export trade.

W. H. Beveridge

NOTE ON TABLE.

The New Exports Index is obtained by dividing the Exports per head for each year (col. 2) by the corresponding Sauerbeck Index Number (col. 3) and reducing the quotients to Index Numbers with 1900—100. The New Net Imports Index (col. 5) gives corresponding figures for the imports retained for domestic consumption.

The exports to 1899 exclude ships; those from 1901 onwards include them. For 1900 both inclusive and exclusive figures are given.

The figures in col. 6 give the mean of the annual barometric pressures at stations in India, Australia, and South Africa. From 1873 to 1904 seven stations—Madras, Bombay, Calcutta, Adelaide, Sydney, Cape Town, Durban—are included, and the figures represent the actual average for these stations. From 1859 to 1872 Durban, and from 1905 to 1913 both Durban and Cape Town, are missing; from 1847 to 1858 figures are available only for Bombay, Madras, and Cape Town, and from 1842 to 1846 for the last two of these only. So far as possible the figures have been made continuous, changes of general level being adjusted by squaring overlapping periods of five years. Thus the mean for the whole seven stations from 1873 to 1877 is 944; the corresponding mean for six stations alone (omitting Durban) is 917, *i.e.* 27 less than for the seven. The actual averages for the six stations from 1859 to 1872 have been corrected by adding twenty-seven in each case. Similar adjustments have been made elsewhere; each change of base is marked by a line across the column.

The figures in col. 7 give the actual averages from 1873 to 1903 for seven stations—Galveston, Nashville, Mobile, Washington, Duluth, Winnipeg, and Toronto. From 1904 onwards comparable figures for Duluth and Winnipeg are not available; the figures give the average at the other five places adjusted in the way already described.

Year.	Exports of U.K. Produce per head of population. £	Sauerbeck Index No. of Prices (1871=100)	New Exports Index. (1900=100)	World's Gold Production. £000,000	Mean Barometric Pressures (29 inches +). India, etc.
(1)	(2)	(3)	(4)	(5)	(6)
1820... ...	1·55	112	15·1		
1821... ...	1·75	106	18·0		
1822... ...	1·75	101	18·9		
1823... ...	1·65	103	17·5		
1824... ...	1·75	106	18·0		
1825... ...	1·75	116	16·4	1·9 [1]	
1826... ...	1·40	100	15·3		
1827... ...	1·65	97	18·6		
1828... ...	1·60	97	18·0		
1829... ...	1·55	93	18·1		
1830... ...	1·60	91	19·3		
1831... ...	1·55	92	18·4		
1832... ...	1·50	89	18·2		
1833... ...	1·60	91	19·3		
1834... ...	1·65	90	20·0		
1835... ...	1·85	92	22·0	2·7 [1]	
1836... ...	2·10	102	22·5		
1837... ...	1·65	94	19·3		
1838... ...	1·95	99	21·6		
1839... ...	2·05	103	21·8		
1840... ...	1·90	103	20·2		—
1841... ...	1·95	100	21·3		—
1842... ...	1·75	91	21·0		931
1843... ...	1·90	83	25·0		941
1844... ...	2·15	84	28·0		931
1845... ...	2·15	87	27·0	7·3 [1]	954
1846... ...	2·05	89	25·1		941
1847... ...	2·10	95	24·2		926
1848... ...	1·90	78	26·6		918
1849... ...	2·30	74	34·1		918
1850... ...	2·60	77	36·9	—	921
1851... ...	2·70	75	39·3	18·2	922
1852... ...	2·85	78	39·9	29·8	933
1853... ...	3·60	95	41·4	31·4	940
1854... ...	3·50	102	37·5	27·2	936
1855... ...	3·45	101	37·3	28·4	949
1856... ...	4·15	101	44·9	29·8	936
1857... ...	4·35	105	45·2	28 6	936
1858... ...	4·10	91	49·2	28·2	940
1859... ...	4·55	94	52·7	27·9	952
1860... ...	4·75	99	52·4	26·3	948
1861... ...	4·30	98	48·0	25·3	922
1862... ...	4·30	101	46·6	24·8	919
1863... ...	5·00	103	52·1	24·8	923
1864... ...	5·45	105	56·9	24·8	953
1865... ...	5·60	101	60·6	26·6	953
1866... ...	6·30	102	67·6	27·3	952
1867... ...	5·95	100	65·2	26·5	945
1868... ...	5·85	99	64·7	26·3	967
1869... ...	6·15	98	68·8	26·0	949

[1] These are the averages for 1821–30, 1831–40, and 1841–50 respectively.

Year.	Exports of U.K. Produce per head of population. £	Sauerbeck Index No. of Prices. 1871 = 100)	New Exports Index. (1900 = 100)	World's Gold Production. £000,000	Mean Barometric Pressures (29 inches +). India, etc.	North America.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1870...	6·40	96	73·1	24·9	923	
1871...	7·10	100	77·8	25·6	929	
1872...	8·05	109	80·9	23·8	927	
1873...	7·95	111	78·4	23·4	932	761
1874...	7·40	102	79·4	21·9	936	764
1875..	6·55	96	74·7	21·8	929	749
1876..	6·05	95	69·8	22·7	944	747
1877..	5·95	94	69·3	24·5	979	740
1878..	5·70	87	71·7	25·4	937	690
1879..	5·60	83	73·9	23·8	927	755
1880..	6·45	88	80·3	21·9	939	747
1881..	6·70	85	86·3	21·2	952	739
1882..	6·85	84	89·3	21·0	934	758
1883..	6·75	82	90·1	19·6	940	772
1884..	6·55	76	94·4	20·9	957	748
1885..	5·90	72	89·7	22·3	966	723
1886	5·85	69	92·9	21·8	947	744
1887..	6·00	68	96·6	21·7	950	748
1888..	6·35	70	99·3	22·6	963	759
1889..	6·70	72	102·0	25·4	947	746
1890... ...	7·05	72	107·2	24·4	935	757
1891... ...	6·55	72	99·7	26·8	961	752
1892... ...	5·95	68	98·0	30·1	922	761
1893... ...	5·70	68	91·8	32·4	930	728
1894... ...	5·55	63	96·5	37·2	941	748
1895... ...	5·80	62	102·4	40·8	947	741
1896... ...	6·10	61	109·5	41·6	950	756
1897... ...	5·85	62	103·4	48·5	947	750
1898... ...	5·80	64	99·2	58·9	932	735
1899... ...	6·10	68	98·2	63·0	956	744
1900... {	6·85 7·15	75	100·0	52·3	944	741
1901... ...	6·75	70	101·1	53·6	956	739
1902... ...	6·75	69	102·6	61·0	957	720
1903... ...	6·90	69	104·9	67·3	942	749
1904... ...	7·05	70	105·7	71·3	950	766
1905... ...	7·70	72	112·2	78·1	955	756
1906... ...	8·65	77	117·8	82·7	944	767
1907... ...	9·70	80	127·2	84·9	936	751
1908... ...	8·55	83	122·9	91·0	958	750
1909... ...	8·50	74	120·6	93·3	926	741
1910... ...	9·60	78	129·2	93·5	927	751
1911... ...	10·00	80	131·1	94·9	940	778
1912... ...	10·70	85	132·1	95·8	947	753
1913... ...	11·50	85	142·0	93·4	949	770
1914... ...						

THE DISINTEGRATION OF THE AUSTRO-HUNGARIAN CURRENCY

THE collapse of the Austro-Hungarian Monarchy amid violence and anarchy, in November, 1918, was necessarily followed after the shortest possible interval by the disintegration of the joint currency.

To account for this the following facts must be considered :—

Whenever a change occurs in the value of the irredeemable paper currency in any portion of an area where a uniform currency exists, then as long as this process of changing goes on, and as long as the joint currency continues, we find a corresponding inverse change in the values of other goods—whether commodities, claims or titles to property—not justified by the production or consumption in the separate provinces which constitute the area, and hence a like variation in the real income of the same provinces.

If the joint currency is abandoned at a moment when the changes which have set in in the distribution of money are still going on, and if every province recognises as legal tender, and identifies as such, only those notes which were actually within its own borders at the date of separation, the effect produced by the variations in the value of money on the distribution of other goods and of income is perpetuated, and produces a permanent effect on the distribution of aggregate wealth between the different provinces.

The same effect is produced when a new issue of paper money is handed over by the issuing authority, either to the State for the purchase of goods destined for the use of one province only, or to the inhabitants of a single province, and when, as must generally happen, the new issue, or a part of it, passes over into other provinces in the ordinary course of trade.

We have described an extreme case, which is not often met with in actual life, for the following reasons :—

(*a*) The breaking up of an area served by a uniform currency, or the cutting off of essential parts thereof, is a comparatively rare event, and when it does occur, questions of currency are usually settled by agreement.

(*b*) The proportions between the average currency require-

ments of the different provinces do not as a rule vary much when considered over a long period of time.

(c) The changes in the sum total of circulating paper money are regulated in such a way that new issues are made to benefit all provinces alike. Money issues for State purposes are either used for the payment of expenses which concern the entire State, as in the case of the war issues in territories belonging to one State only, or they are distributed in more or less fair proportion among the different States which share the same currency, as in the case of Austria and Hungary during the war. If loans are floated at the same time as the new money is issued, all the territories which share in the currency get the benefit of the interest earned, according to one or the other principle described above.

All the States which succeeded the Austro-Hungarian Monarchy were threatened with a dislocation of values of the kind described, when it became clear that the common currency would sooner or later be broken up, without the adoption of any measures that might have safeguarded the interests of the separate States.[1] It was against the interests of each of these States that any one among them should be given new bank-notes or credits from the Austro-Hungarian Bank, for it was to be expected that such bank-notes or credits would be used in the ordinary course of business for sending remittances to the other States, and there was no guarantee that the holding of a larger amount of bank-notes, or of larger deposits with the Austro-Hungarian Bank, would be of any value on the final day of reckoning. On the other hand, each of the States had a deficit in its own Budget, which could only be met by the issuing of new paper money. Furthermore, each of the Succession States dreaded lest the others should somehow succeed in transferring to it a part of the money circulating within their own provinces.

Despite all these apprehensions and difficulties, the States termed "Austria" and "Hungary" after the break up of the Monarchy were not in favour of a premature dissolution of the joint currency. For the financial winding up of the old Austria and the old Hungary (the two States of the Monarchy had no debts in common) left them with only two alternatives: either the liabilities of the Dual Monarchy must be distributed among the separating provinces according to their individual economic capacities, or else the new Austria and the new Hungary would

[1] The question of what measures should have been taken, though theoretically interesting, is not to the point here, and will therefore not be dealt with.

have to shoulder a disproportionately heavy share of the burden. So as not to preclude the first alternative, they took their stand on the principle that the outstanding bank-notes and deposits should be honoured by the Succession States, not in proportion to the amount of currency actually circulating and of deposits held within their own borders, but according to their legitimate share of the debts with the Austro-Hungarian Bank contracted by the former Monarchy, and that their shares should be fixed according to their economic capacities.

The other Succession States did not fall in with this view; they refused to make their newly-acquired territories responsible for adequate shares of the debts of the two old States. They had no scruples about nationalising the bank-notes circulating within their own borders. Czecho-Slovakia was the first to begin secret preparations for a separation of the currency; the Jugo-Slav Government, however, getting wind of these preparations, deemed it wise to steal a march on the other States, and in February, 1919, suddenly decreed that the bank-notes held in Jugo-Slav territories, were to be handed over within a few weeks' time to specially appointed authorities, in order that they might be marked with a special stamp. After that date none but the stamped notes would be legal tender in the former Austro-Hungarian territories. (In the old Serbian territories the Dinar note had prevailed in the circulation since the Armistice.) While the stamping was being effected the import of kronen notes was prohibited.

This measure, which from the point of view of the Jugo-Slav Government was perfectly correct in theory, did not work out well in practice. The preparations had been hurried, and the stamping was consequently so badly executed that forgery was rendered very easy. And when, owing to the comparatively favourable economic conditions prevailing in Jugo-Slavia, the purchasing power of the Jugo-Slav krone rose above that of the unstamped note which remained in circulation in Hungary and Poland, forgers promptly availed themselves of this opportunity.

For the rest, since Jugo-Slavia possessed no bank-note press, it is not easy to see how the Government could have obtained home credit without the aid of bank-notes with forged stamps which crossed her frontiers. Yet this home credit was indispensable to cover the deficit in her Budget. There might have been other alternatives: prices at home—in the absence of forged notes coming in to pay for exports—might have fallen, and existing resources might have proved adequate for the granting

of credit, and might have been used for this purpose. This method, however, could hardly—on account of the many existing sources of friction—have been put into operation with sufficient rapidity.

The sum stamped by Jugo-Slavia amounted to about 7 billions, out of a total of 37 billion Austro-Hungarian notes circulating in February, 1919.

In December the notes circulating in Jugo-Slavia underwent a second process of discrimination by stamping. On this occasion the Government, following the Czecho-Slovakian example, to be described later on, held back 20 per cent. of the notes handed in for stamping. As far as can be judged, this second stamping aimed at making forgery more difficult, and at providing for the State currency requirements. In January the Government announced that the stamped kronen notes would be exchanged for new notes. For technical reasons, dinar notes, bearing a special stamp, are to be used for this purpose; these stamped dinar notes, except for their outward appearance, have no more in common with the ordinary dinar notes than the stamped kronen notes. The unification of the currency has not yet been achieved, mainly because the Government cannot decide on the relative values of kronen and dinars; this problem is still the subject of violent controversy.

At the public money-changing offices of the Jugo-Slav territories formerly belonging to the Austro-Hungarian Monarchy, dinar notes were at first accepted against 2½ stamped kronen; since August against 3; and since January against 4 kronen. The real rate of exchange of the dinar note was, until the last change effected in January, somewhat higher than the official rate.

The Republic of Czecho-Slovakia followed the lead of Jugo-Slavia early in March. In order to prevent the flowing in of kronen notes, the frontiers were closed for goods and passenger traffic, as long as the stamping lasted.

The Chancellor of the Czecho-Slovakian Exchequer, Dr. Raschin, had more in view than the nationalising of the currency. Fifty per cent. of the notes presented for stamping—with a few exemptions—were held back; for these a Treasury Bond, bearing 1 per cent. interest and not negotiable, was substituted. It was intended, when the proposed capital levy came to be made, that these bonds should be accepted at par in payment of the tax, and that any balance left after the discharge of this, should be cashed at par also.

By means of an exact record of the notes handed in, together with an inventory of other forms of wealth (bank deposits, shares, etc.), a property register was compiled, and the ground prepared for a levy on capital. The payment of the levy was to be secured by keeping back the 50 per cent. of notes, and at the same time blocking 50 per cent. of the bank deposits, while it was expected that people would, in order to evade the levy, leave a part of their bank-note hoard unstamped, and use this to buy property in the other Succession States. At the same time the reduction in the number of circulating notes would improve matters by enhancing the value of the currency. 2.4287.

In November, 1919, the stamped kronen notes were exchanged at par for "Sokols," the new monetary units of Czecho-Slovakia, issued by the Banking Department of the Treasury.

As regards the attainment of Dr. Raschin's aims, we may admit that the measures taken for a capital levy were more or less successful. As regards the attempted appreciation of the currency, it can hardly be ascertained how far the difference that has arisen between the value of the Czecho-Slovakian krone, and the German-Austrian and the Hungarian krone, is to be attributed to the reduction of the number of the former notes in circulation, and how far the more favourable economic conditions of Czecho-Slovakia may be held responsible. The writer inclines to the view that neither a reduction of the currency effected by the above-mentioned methods, nor yet a levy on capital, can have any appreciable influence on prices or on the rate of exchange. This view is supported by the fact that the internal purchasing power of money underwent no immediate change of any kind, and that it was only very gradually that a difference developed between the internal purchasing power of the two kronen. (This difference in purchasing power is not by any means as great as the difference produced between the two rates of exchange by speculation and intentional manœuvres.)

The keeping back of the 50 per cent. proved an unfortunate measure, which later on the Government was compelled practically to rescind. For the level of prices refused to adapt itself to the reduced amount of currency, and a very great scarcity of money ensued. The Government had no bank-note press at its disposal, nor could it utilise the bank-notes held back, since these were to be dealt with as blocked private property. It was therefore left without any of the normal expedients for tiding over the difficulty, and was obliged first to resort to a moratorium, and then to return to many of their owners the notes which it

had previously kept back. Finally, the scarcity was alleviated by an influx of fraudulently stamped bank-notes.

But the fatal defect of Dr. Raschin's scheme for the nationalising of the paper currency was its inability to provide adequate safeguards against fraud. Although the method of stamping adopted was not quite so primitive as that of Jugo-Slavia—instead of mere printing, a stamp rather less easy to counterfeit was applied—there was yet sufficient margin left for forgery. As a matter of fact, a financial policy designed to effect an immediate rise in the value of the Czech currency as against the unstamped krone would inevitably have invited fraudulent stamping, even before the practice developed in the ordinary course. The natural consequence of this was that, between February and November, 1919, when the exchanging of the stamped notes for new currency was being accomplished, unstamped notes to an amount certainly exceeding one billion, still circulating in Hungary, Galicia, and in the former Russian provinces occupied during the war by the Austrian armies, were fraudulently stamped and introduced into Czecho-Slovakia.

Owing to this wholesale forgery, many people were not willing to accept payments in notes of large denomination, or insisted on scrutinising these with a magnifying glass, and travellers bringing bank-notes into the country had to submit these to a similar scrutiny at the Czecho-Slovakian frontier. Ultimately, rather than leave the innocent to suffer for the fraud of others, the Czecho-Slovak Government was obliged to exchange the forged notes for new bank-notes. It is quite possible that, so far from preventing notes from flowing in from abroad in exchange for other values, the nationalising policy actually encouraged the process.

The only official information we have of the exact amount of notes stamped is derived from a statement made incidentally by Dr. Raschin in one of his speeches. He estimated the amount of notes presented at 8 billions, the amount returned (purposely leaving the figure vague) at 5½ to 6½ billions.

The amount of notes actually circulating in Czecho-Slovakia must have exceeded 8 billions. Some of the notes, however, were never presented by their owners, who preferred to avoid being mulcted of 50 per cent., and to supply themselves with a forged stamp at a more convenient opportunity.

It was not until early in March that Austria and Hungary, in mutual agreement, resolved to follow suit. The Bolshevist Revolution prevented the stamping from being carried out in

Hungary, but in Austria it was accomplished by the end of March, and the compilation of a record of the sums handed in prepared the way for a levy on capital. The stamping was efficiently performed by printing over the notes, but there was in any case very little danger of fraud, since the Czech krone was expected to command a premium, and would consequently prove more advantageous to forge. Nor has any tampering with the notes been detected. The amount originally stamped was 7 billions, but by the middle of January, 1920, new issues had brought the circulation up to 13 billions.

The Austrian financial authorities assumed that the liquidaton of the Austro-Hungarian currency would be an equal charge on all the partners, and they endeavoured to avoid flooding the market with the Austrian krone (a real danger, since most of the kronen had been issued in Vienna) by earmarking the deposits made before the stamping began, and honouring them only in unstamped, or "old," kronen. Thus such credits lost their purchasing power in Austria. This policy was bitterly resented by neutrals, but quite unjustifiably so, for, in accordance with the Peace Treaty stipulations regarding the liquidation of the Austro-Hungarian Bank, all old kronen accounts will shortly be converted into new Austrian kronen.

In the course of the summer Italy and Roumania also proceeded to nationalise the currency circulating in the provinces allotted to them. In the new Italian provinces the kronen were at first exchanged for lire at a rate of 2½ kronen for 1 lire; later on, additional payments were made on the cashed kronen. The very favourable treatment accorded to the kronen was a kind of national gift made by Italy to the annexed provinces. Two and a half billions of kronen were cashed.

Roumania did not convert the kronen, but only stamped them; the public exchange offices in the newly-acquired provinces accepted first 2 and later 2½ stamped kronen for one lei.

Poland has not, up to the present, stamped the bank-notes circulating in Galicia and in the other territories administered by the Austrian military authorities during the war. She confined herself to prohibiting the import of kronen notes—without success—and fixed the official rate of exchange at 2 kronen for 1 Polish mark.

In Hungary the preparations for stamping were interrupted by the Bolshevist Revolution. The Soviet Government, for whose needs the stock of about 3 billions of unstamped notes found in the Exchequer and in the banks, did not suffice, put into circula-

tion about 3 billions of imitation notes, which were immediately identified, and which the peasants refused to accept in payment for their wares. The back of these notes was white, while the back of the note issued by the Austro-Hungarian Bank was blue, and "blue money" had already risen to a premium of 100 per cent. during Soviet rule. The Post Office Savings Bank added to the circulation notes of its own to the amount of 300 millions.

The Government which came into power after the overthrow of the Bolshevists, fixed the nominal value of the "white notes" in circulation at one-fifth their original nominal value, and redeemed them at this rate. The notes of the Austro-Hungarian Bank, however, proved quite insufficient for this redemption, and for the other requirements both of the Government and of private commerce. The new *régime* found no stock of notes, and the Austro-Hungarian Bank could not, owing to the other calls on its press, supply more than a very limited number. The demand for currency was urgent, for the agricultural population was unable to spend on manufactured goods the money earned by the sale of foodstuffs, and was unwilling, in the prevailing conditions of insecurity, to deposit it with the banks. Thus money was withdrawn from circulation and hoarded. The Government was compelled to issue currency notes amounting to some hundred millions through the Post Office Savings Bank, but as the conservative rural population would not accept these in payment of foodstuffs, they were quoted at a discount of several per cent. Later on, when confidence began to be restored, and the Austro-Hungarian Bank was able to supply more bank-notes, the discount vanished almost entirely, and the internal circulation returned to normal conditions. The unstamped note, and consequently the notes issued by the Post Office Savings Bank, now stand at a premium varying from 15 to 30 per cent. over the Austrian money. This may be due partly to the belief that the future of Hungary and Poland offers better prospects than that of Austria, and to the view (supported by very vague evidence) that the conditions of the Peace Treaty are more favourable to the unstamped than to the stamped notes. Or it may be due to the more satisfactory conditions of production and trade existing in Hungary and Poland. Or, again, it may be caused by the demand for unstamped notes created up to December by counterfeiters of Czecho-Slovakian stamps and by forgers of Jugo-Slav and Roumanian stamps at the present day.

The following table, in terms of Zürich quotations, illustrates

the depreciation of the kronen, and of the national currencies derived from it, during the past one and a half years:—

Par = 24 kronen to the £.

	25 X. 1918	2 I. 1919	28 II. 1919	29 III. 1919	30 VIII. 1919	30 IX. 1919	20 I. 1920
Kronen circulating in the whole Austro-Hungarian territory	52·75	76·50	100	—	—	—	—
Unstamped Kronen ..	—	—	—	115·50	222	515	870
New Austrian Kronen..	—	—	—	115·50	218	575	1130
Czecho-Slovak Kronen..	—	—	—	85·50	123	214	275
Jugoslav Kronen ..	—	—	—	115·50	208	402	450

The Jugoslav krone is not quoted at Zurich; the calculation was made by comparison with the prices paid in Vienna for the Jugoslav krone. The same method was adopted to arrive at the value of the unstamped krone, this comparison appearing more useful than the Zurich quotation.

If we examine the enactments by means of which the Austrian Peace Treaty remodels the legal relations which existed before the collapse of the Monarchy between the Austro-Hungarian Bank, the holders of bank-notes and the debtors of the bank, we may well conclude that there is hardly any clause in the Peace Treaty so unintelligible or so obscure—even after minute analysis—as Paragraph 206, which deals with these questions.

According to the only interpretation which does not lead to insoluble contradictions[1]—and a very free interpretation at that—the following essential stipulations are made by the Peace Treaty:—

The Succession States are bound to redeem, under conditions to be settled by themselves, the kronen notes circulating in their own territory; they are to keep the notes which they redeem on the former Austro-Hungarian territory separate from the notes

[1] The main point of the interpretation to which the attention of students of the Peace Treaty may be drawn, is the meaning which is attached on the one hand to the words "securities issued by the Austrian and Hungarian Governments and deposited with the Bank" and on the other hand to the words "other assets." For it is possible to read an intelligible meaning into the enactments only if the first passage is not taken literally. "Securities deposited" must be understood to include all credits granted by the Bank to private persons (chiefly against War Loans as security) in so far as these are needed, according to the present balance of the money-issuing Bank, to bring up the direct Bank debts of the two former States to the equivalent of the amount of outstanding notes; accordingly, among the "other assets" real property and gold must occupy the chief place.

which they redeem outside this territory, *i.e.*, on what used to be their old territory outside Austria-Hungary, and they are to deliver them to the Reparation Commission. All other States wishing to secure any rights whatever for their subjects in respect of notes which were issued before October 27th, 1918, and had found their way outside the late Monarchy by June 15th, 1919, have likewise to collect and deliver these notes. As regards the notes which were either issued before October 27th, 1918, and brought into the country after June 15th, 1919, or issued after October 27th, 1918, there is no obligation on the part of any State other than the Succession States to collect them, if the regulations of Paragraph 206 could be applied literally. There can, of course, be no compulsion as regards neutrals, nor do they appear to be offered any other inducement. For, as will be shown in detail later, no claims can be made in respect of notes issued before October 27th, 1918, and brought out from the old Monarchy after June 15th, 1919, whereas private holders of notes issued after October 27th, 1918, are allowed to claim their rights. Nevertheless, the non-Succession States will collect both these classes of notes, because, as we shall see later, they will not be able to distinguish between them.

According to the provisions of the Peace Treaty, there would appear to be eight separate classes of notes :—

(*a*) Notes issued before October 27th, 1918, and redeemed by the Succession States on the former Austro-Hungarian territory (including the new Austria and the new Hungary).

(*b*) Notes issued before October 27th, 1918, and redeemed by the Succession States on their own territories situate outside the borders of the old Monarchy—these notes having found their way to these territories before June 15th, 1919.

(*c*) Notes issued before October 27th, 1918, and redeemed by the Succession States on their territories situate outside the borders of the old Monarchy, these notes having found their way to these territories after June 15th, 1919.

(*d*) Notes issued before October 27th, 1918, collected by other States, which found them in circulation on their territories on June 15th, 1919.

(*e*) Notes which were issued before October 27th, 1918, but which found their way into the territories of other States after June 15th, 1919. In the same category all the other notes issued before October 27th, 1918, which were not handed in to the Reparation Commission by one State or another.

(*f*) Notes issued after October 27th, 1918, and redeemed by

the Succession States on what was previously Austro-Hungarian territory.

(*g*) Notes issued after October 27th, 1918, and redeemed by the Succession States on their territories situate outside the frontiers of the old Monarchy. With regard to these notes, it is immaterial when they found their way into these territories.

(*h*) Notes issued after October 27th, 1918, to be handed in by subjects of other States.

No rights can be claimed in respect of notes under categories (*c*) and (*e*) either by the States which are bound to collect and deliver them, or by private owners.

All other notes (except those of Class (*a*) redeemed by the Succession States on territory previously belonging to Austria-Hungary) entitle the holders to a lien on the sums due to the bank from customers on account of private loans—the amount involved in this lien to be such a sum as will bring the cover of the note circulation of the two former States up to the amount required by the previously existing currency regulations. Further, a right may be asserted to that portion of the claims against the new Austrian State and the new Hungarian State, which brings the above-mentioned loans up to the sum of the notes actually handed in; these rights belong to the bank, because the new Austria and the new Hungary have to accept responsibility for the total bank debts of the former Austrian and Hungarian States, less the amounts of the bank-notes of Class (*a*). Later on those portions of the debts taken over which cannot be shown to fall within the above regulations are to be cancelled.

Furthermore, with respect to all the above-mentioned notes which were issued before October 27th, 1918, and with respect to the notes in Class (*a*)—these likewise were issued after that date—the collecting States possess a lien on all the other assets of the Bank, *i.e.*, on the surplus portions of the claims payable in kronen which the bank holds for private customers on real property, foreign claims and gold.

On two points, however, the Peace Treaty leaves us entirely in the dark, and until these are cleared up not a single step can be taken towards liquidation. What exactly is meant by the "rights of the holders of those bank-notes, for which the bank's claims, as enumerated above, against the two States, and against private customers, stand as security"? And what are those rights to which the other assets of the bank are pledged? We might possibly interpret the first-mentioned group of rights, according to accepted tenets of finance, as claims to the delivery

of new Austrian and Hungarian currency at the ordinary rate of exchange obtaining within the two new States. To the second group of rights we can attach no meaning whatsoever, since the Austro-Hungarian Bank has never been obliged to exchange its notes for specie. The holders of these notes, therefore, have no rights beyond the exchange of their notes for new issues.

But, apart from questions of interpretation, Paragraph 206 is open to the further objection that, even if its provisions could be carried out to the letter, holders of notes would find the value of these to be at the mercy of circumstances which are not of the slightest real importance. It is nothing short of absurd that kronen notes which were issued before October 27th, 1918, and happened to enter, after June 15th, 1919, into territories which did not previously form part of the Austro-Hungarian Monarchy, should not be honoured, whilst notes issued after October 27th, 1918, have a right to redemption in kronen issued by the Austro-Hungarian Bank. It is equally absurd that the participation of the different States in the "other assets" of the bank should depend on the accident (which, by the way, is not even shown on the note itself [1]) of how their kronen notes happen to be divided between issues prior, and issues subsequent, to October 27th, 1918.

But Paragraph 206 is altogether incapable of being acted on, for there is no evidence by which we can determine the exact spot—whether on territory previously included in the Austro-Hungarian Empire or previously outside it—on which the actual redemption of any particular notes was effected by the Succession States. Nor can there be any means of ascertaining whether notes, now current in the territories not previously belonging to Austria-Hungary, came in before June 15th, 1919, or afterwards.

We must therefore conclude, quite apart from any question of injustice towards the new Austria and Hungarian States, that the Reparation Commission will have to draw up a new set of provisions for the liquidation of the kronen currency, in which only portions of Paragraph 206 can be incorporated.

It would be beyond the scope of this article to conjecture what the future of the currencies derived from the Austro-Hungarian krone may be. We can only express a hope, which may at present sound very Utopian—that an economic Danube Federation, and a common currency holding good within its borders,

[1] The kronen notes always bear as the date of issue the 2nd of January of the year in which they were printed.

may do something to repair the shattered economic conditions of the territories belonging to the former Austro-Hungarian Empire. This would offer the advantages which large economic units, with a common currency and traffic system, have over small economic units, and the further advantages which spring from union between countries adapted by natural conditions and historic development to supplement each other's needs.

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Vienna.

FURTHER OBSERVATIONS ON THE WORLD'S MONETARY PROBLEM

HUMANITY has striven during thousands and thousands of years to make itself sovereign over surrounding nature, her forces as well as her *materia*. The result is what we call civilisation. In one case, however, humanity seems to have consented for ever to be the slave of a *materia*. That is in the case of gold. Of course, man has applied all his technical superiority to the work of winning the gold out of the stores of nature. In that respect he has nothing with which to reproach himself. But to the scantiness or abundance of the supply of gold thus given he has committed a commanding influence over what is called his economic life, that is, over the whole of his efforts to win the means for satisfying his needs. So late as the end of the nineteenth century, he has, *e.g.*, for more than two decades allowed a scarcity of gold to retard his economic progress and keep down the productivity of his work.

The critical point to which the war has brought the economy of the world makes it very natural that we should now earnestly ask ourselves if we really are willing further to submit to such a state of things. The decrease in the monetary demand for gold in comparison with the more and more abundant supply of paper money has brought the value of gold down to about half its pre-war level, with the consequence that, as is seen in the United States, the prices of commodities in gold have risen to about double what they were before the war. Though this enhancement of prices has certainly been a most injurious process, the inverse process of bringing prices down again to their old level would probably be still more disastrous. The prospect of a long period of falling prices would kill all enterprise and impede that reconstruction of the world which is just now so very urgent. A rise in the value of gold would also, for many countries, make the restoration of the gold standard much more difficult, not to say impossible, and in an immense degree aggravate the already oppressive financial burdens of the Governments. It seems, then, natural enough that the world should now wish to prevent gold from rising again in value.

This, so far as I can see, can only be done by some sort of international agreement to keep down the world's monetary demand for gold. A restoration of the use of gold as a circulating medium, and of the former requirements as to gold covering for the liabilities of the central banks, would without doubt mean a violent rise in the value of gold and a corresponding fall in the general price-level. These two sources of demand for gold must consequently be laid under a control to be internationally agreed upon. Perhaps, for instance, it would be found expedient to melt down all existing gold coins and stop all further coinage of gold. But this would not be enough. It will, without doubt, also prove necessary to put a limit to the demands of the central banks for more gold. The case of England is illustrative of this necessity. If the prescribed limitation of the issue of currency notes to a maximum of £320·6 millions is to be carried through, as the latest acquisitions of gold by the Bank of England seem to indicate, by aid of an increase in the note circulation of the bank, no rise in the internal value of English money will be achieved. But the necessity of acquiring more gold will strengthen the world's demand for this metal and help to enhance its value. If other countries should follow this example, this enhancement might become very embarrassing.

But there are also other difficulties to be taken account of. The withdrawal of gold from circulation and the disappearance of all definite standards of gold-cover have in a most serious degree impaired the *stability* of the value of gold. If gold is to be used henceforth as a monetary standard, it is, therefore, necessary to take special measures for stabilising the value of the metal. As these measures, which would mainly consist in the establishing of appropriate and stable principles in regard to the gold-holdings of the central banks, naturally must be of an international character, the whole problem must be laid before an international conference, and this point has seemed to me to be one of the strongest grounds for the early summoning of such a conference.

So far my views coincide, I think, pretty nearly with those set forth by Mr. Hawtrey in his very able and instructive article on "The Gold Standard" in the last issue of this JOURNAL. I wish, however, to call attention here to another difficulty which seems to have escaped the attention hitherto even of those who have become aware of the importance of the problem of stabilising the value of gold. This difficulty arises in connection with the production of the metal.

If we have a stabilised monetary demand for gold, we must,

of course, have an annual production of gold corresponding to the general rate of economic progress of the world, and, in addition, sufficient to cover the yearly waste of gold. This normal annual demand for gold amounted, during the period 1850–1910, on an average to about 3 per cent. of the total accumulated stock of gold in the world at the time. Of this sum 0·2 per cent. covered the loss of gold and 2·8 per cent was added to the world's stock of gold. Thus the stock of gold, and therefore, also, the annual addition to it, increased on an average by the yearly percentage of 2·8. Assuming the same rate of progress in the years before us, we should need at present an annual production of gold of about £100 millions, increasing in subsequent years at the rate of 2·8 per cent. yearly (*cf.* my *Theoretische Sozialökonomie*, Leipzig, 1919, § 54).[1]

In 1915 the world's production reached approximately this sum. But the rise of prices of commodities in terms of gold units has hampered the production and brought it down considerably below the figure attained in 1915. In the Transvaal the falling off of the production has not been very marked, but still a reduction from the maximum of £39·5 millions in 1916 to £35·8 millions in 1918 and a somewhat lower figure in 1919 has taken place. Much greater has been the decline in the gold production in the United States, where a maximum of 101 million dollars was reached in 1915, but where the production for 1918 was only 68 million dollars and for 1919 probably not more than 55 or 60 million dollars.

The production is consequently at present not sufficient for a normal increase in the world's stock of gold. As the necessary annual production of gold would, under the assumed rate of progress, in ten years be £132 millions and in twenty years £174 millions, the danger of a quite insufficient supply of gold is much more imminent than seems to be generally recognised. Another factor is working in the same direction. Gold being the only commodity which has not risen in price while in countries with an effective gold standard other prices have been doubled and the general level of incomes has been raised in the same proportion, it is only natural that the demand for gold as a material for articles of luxury should have increased substantially. It is also

[1] It is generally believed that the stability of the value of gold depends on the accumulated stock of gold being very large in comparison with each year's production. This fallacy is repeated in almost every text-book on the subject and even so acute a writer as Mr. Hawtrey yields to it. In reality, the accumulated stock should not be "very large," but simply 33 1/3 times as large as the annual production.

known that the use of gold in the arts is growing rapidly. This consumption threatens, indeed, to absorb a large part of the diminished annual production of gold. What is left for monetary use will then be very insufficient for the necessary regular increase in the world's monetary stock of gold. This deficiency must result in a progressive scarcity of gold and a consequent continued rise in its value. This result could only be avoided if new goldfields were discovered and developed in the proportion necessary for a normal supply of gold. But leaving such a possibility out of consideration and assuming the production of gold to remain about constant, we have to face a growing scarcity of gold and a continued depression of prices.

It will therefore probably be necessary not only now to prevent the monetary demand for gold from resuming its old dimensions, but also to regulate henceforth this demand with a view to reducing it gradually, as the growing scarcity of the supply of gold may require. If we further take into consideration the possibilities of changes in the conditions of gold-mining, we shall find that the scope for this regulation of the monetary demand for gold may easily be considerably widened. Thus the task may seem to involve great difficulties. But if we are not prepared to abolish at once and for ever the use of gold as a standard of value, we clearly must do something for stabilising the value of gold, and this is certainly not possible without a rational regulation of the monetary demand for gold.

It is interesting to compare this expedient with the well-known plan of Professor Irving Fisher for stabilising the dollar. Professor Fisher accepts the variability of the value of gold as a fact, and would stabilise the dollar by varying its gold content. This plan met with some difficulties as long as an actual circulation of gold coins had to be taken into account. But if we can suppose all gold in monetary use concentrated in the vaults of the central bank, it will only be necessary to regulate the price at which this bank buys or sells gold. If gold becomes abundant and sinks in value, the bank would only have to lower its price of gold in a corresponding degree. In this way the monetary standard could be made independent of the variations in the value of gold and kept at a constant value in comparison with commodities. But in that case it is very difficult to understand why gold should not be dispensed with altogether for monetary purposes. It would have lost its function as a coin, as well as that of a standard of value. The latter function is fulfilled when the price of gold is fixed in the monetary unit of the country, the

value of this unit following the value of gold. But the essential point in Fisher's system is that the price of gold should not be fixed. The necessary stability should be given to the monetary unit by fixing the price of the mass of commodities comprised in the calculation of the index-number. Clearly, gold has nothing to do with such a standard, and the quotation of its price by the bank would be of no use from the monetary point of view except so far as it could facilitate payments to other countries. But this end could just as well be attained by a quotation of the exchanges on these countries. Only for payments to less-developed countries still desirous to have gold could a quotation of gold perhaps be of some use.

Professor Fisher's plan means, therefore, in principle, the ultimate abandonment of gold as a monetary standard. If we wish to retain gold as basis of our money we certainly must fix the price of gold in our monetary unit. But if we, at the same time, wish to keep the general level of prices as constant as possible, we must take measures to regulate the value of gold, and we then come to the regulation of the monetary demand for gold proposed above. Having regard to our bad experiences with paper money in recent years, most people would probably find it highly desirable that the paper money of the future should be redeemable in gold at a fixed rate. For payments to other countries this guarantee would without doubt be of real importance. A redemption at a variable rate would never present the same degree of security, at least not in the eyes of the public.

Of course, the advantage of a stable value of gold could not be had for nothing. In periods of superabundant supply of gold the central banks would have to buy up large quantities of gold, and in a corresponding degree to diminish their income-yielding assets. They would thereby suffer a loss of income. From the point of view of social economy a stabilised value of gold would mean, at such periods, an unnecessary and therefore wasteful extension of the production of gold. The system of Professor Fisher has the advantage of discouraging, in periods of abundant supply, the production of gold by lowering its price. But, leaving the possibility of very great new discoveries of gold out of consideration, we have rather, as is shown above, to reckon for the future with a growing scantiness in the supply of gold. Under such circumstances, it is a distinct advantage to cut down the monetary demand for gold instead of keeping up a very uneconomical production by raising the price of the metal.

Under a growing scarcity of gold it would perhaps ultimately

seem impossible for the central banks to reduce further their gold holdings. They would then probably find it expedient, in order to avoid a fall in the general price-level, to raise their price of gold. This would mean the victory of the Fisher system. But, as I have already explained, there is no reason to believe that such a system could be anything more than a transitional stage to a definite abandonment of gold as a monetary standard.

It is often believed that we might check the present inflation by simply reverting to work and bringing up the world's production to its old level. Some people even go so far as to expect a complete restoration of the old purchasing power of money by keeping the present supply of means of payment unaltered while an increasing production grows up to a level with it. But this would be rather a slow process. With a normal rate of progress of, say, 3 per cent. a year, it would take thirty-one years to overcome an inflation of 250 and nearly thirty-eight years to fill up the abundance of money in a country where the inflation has reached 300. To put an artificial restraint on the world's supply of means of payment during such a period is clearly quite out of the question. Besides, the continued fall in the general level of prices which would be the result would, of course, hamper all enterprise and cause a severe economic depression. Under such circumstances it would be vain to expect that normal progress of the world's production on which the whole plan rests. We must, therefore, without doubt, in the main take the present level of prices in the actual gold standards, *e.g.*, in the United States, as given, and adjust our monetary demand for gold so as to keep up this level of prices.

GUSTAV CASSEL

DJURSHOLM, SWEDEN, *January*, 1920.

I must use this opportunity for an answer to some remarks by Miss Van Dorp in the last number of this JOURNAL. She attacks me for holding the popular view that an *export-surplus* must cause the money of a country to rise in value in foreign places above its purchasing-power parity. But I have never said that and never thought that. On the contrary, I have directed, during all the years of war, a considerable part of my scientific work to efforts to destroy the popular fallacy that the movements of the exchanges could be explained by the balance of trade. The exchanges are, according to my theory, determined essentially by the *purchasing-power parity* between the monetary standards compared. A deviation from this purchasing-power

parity is possible on two main grounds: (i) The prices of the goods exported from a country may not truly reflect the general price-level of that country. If they, *e.g.*, have risen more than this level, the money of that country will probably be valued abroad somewhat lower than would correspond to its purchasing-power parity. Thus the exceedingly high price of export coal in England probably is the main cause of the undervaluation of sterling in Sweden which existed during 1919. Miss Van Dorp touches this point on p. 501, but does not further develop it. (ii) Every *one-sided* interference between the trade of two countries, *e.g.*, prohibitions of exports or of imports, custom duties, etc., must cause the rate of exchange to deviate from its purchasing-power parity. Miss Van Dorp does not seem to have understood this most important cause for a deviation of an exchange from its purchasing-power parity. At any rate, her quotation on this point of my article in No. 112 of this JOURNAL is quite misleading. Her objections against my views on the connection between inflation and the increase of paper money (p. 501) are, to say the least, unnecessary. Of course, I have never denied that a reduction of the "consumption stock" to the half would have the same influence on inflation as a doubling of the stock of money. But I have emphasised, during the war, the overwhelming influence of the abundant supply of money, and that for the simple reason that where the stock of goods has perhaps been diminished by 20 or 30 per cent., the stock of money has usually been augmented by 200 or 300 per cent. And I still venture to think that it is very important to clear up popular opinion on this point.—G. C.

CLASSICAL PRINCIPLES AND MODERN VIEWS OF LABOUR

SAYS the Peace Treaty: "In fact and in right the labour of a human being should not be treated as merchandise or as an article of commerce." Says Ricardo: "Labour, like all things that are produced and sold, and which may be increased or diminished in quantity, has its natural and market price." Which of these two rival principles is going to hold the field? Before the war we accepted in the main the view that labour was a commodity, fundamentally akin to merchandise and articles of commerce, that it was bought and sold, and that the payment made for it, like the payment for other commodities, tended in the long run to be equal to its value.[1] Now we have the Peace Treaty denouncing this treatment of labour as an offence against both "fact" and "right." Unless we are prepared to dismiss the Labour Charter of the Treaty off-hand as nothing but sound, designed to allay fury, it behoves us to inquire how far the facts already justify this novel view of labour; what will be the ultimate results of carrying the new policy into effect; what are the conditions essential to its success, and whether these can be permanently maintained. The life of the Treaty has not yet passed the space of the short period. Who knows whether in the long run the Ricardian principle will not find means to revenge itself?

The period of the war has seen certain clearly-marked developments in the remuneration of labour. It has seen, first, a very great rise in money wages; second, a new departure in the practice of adding a bonus, war-wage, or cost of living advance to the basic rates of wages; and, third, the perfection of this policy in the regulation of wages by a sliding-scale governed by an index of the cost of living. This last development has lately acquired special prominence in the popular view by its introduction into the settlement which is to govern the future wages of railwaymen. Each of these influences which have affected the payment for labour in the last six years has an important bearing on the

[1] The term "value" is used throughout in its purely economic sense; without a savour of ethics.

question how far the reward of labour has become divorced from its value—in precise terms the value of its net product at the margin. The method of automatic regulation of wages by the movements of the cost of living probably has most significance in this connection, but the rise in wage levels and the prevalence of the bonus idea cannot be ignored. Let us deal with these lesser matters first.

In order to ascertain whether the general trend of wages during the war and after has been such as to be gratifying to the *doctrinaire* theorist or the reverse, we need to know two things. What movements in real wages do the observed movements in money wages portray? And what are the changes in the value of labour which the general disturbance of economic conditions would lead us to anticipate? If the answers to these two questions bear any similarity, then the time-honoured conception of labour as a commodity is still justified. Those who wish to denounce it must give up the plea of fact and content themselves with that of right. Unfortunately, to ascertain what has actually happened to real wages during the war, still more what have been the movements of demand and supply, would require an immense amount of detailed research into facts, of which those that are accessible are frequently presented in an incomplete and misleading form, whilst others can scarcely be said to be accessible at all. However, there seems to be a general agreement on rough outlines; if this is a consensus of error, time and riper study will doubtless dissipate the product of human fallibility. In the *Labour Gazette* of May, 1919, a sketchy attempt was made to summarise the changes in wages which had occurred during the war. The final conclusion reached is that "rates of wages, for manual workers generally, have been more than doubled during the war"; and there is "little doubt" that the general average increase on pre-war rates lies between 100 and 120 per cent. As between trade and trade it is found that the trades which led the way in the grant of successive increases were the munition and transport trades, together with certain other industries (*e.g.*, coal-mining) in which "the supply of labour has been much below the demand." In the building trades a general average increase (weighted in proportion to the numbers of men employed in different occupations) of nearly 110 per cent., reduced perhaps to about 100 per cent. by shortening of hours, is recorded. For "all classes of workers in coal-mines" the figure given is from 110 to 120 per cent. (apparently including the Sankey wage). Iron and steel millmen in the principal districts "have mostly had

increases of 113 to 117½ per cent.," "corresponding amounts" being awarded to iron puddlers in the same districts. "Steel smelters, pitmen, etc., generally have received advances ranging, for the higher-paid men, from 60 per cent. to 77 per cent." "In the case of the lower-paid men, the increase has varied according to the pre-war rates, being over 150 per cent. for labourers rated at, say, 22*s*. 6*d*. per week before the war." In the South Wales tinplate trade the graduated war bonuses have been given in inverse proportion to basic rates, the figures ranging from 50 per cent. for workers earning over 130*s*. a week up to 115 per cent. for those earning from 20*s*. 1*d*. to 30*s*. a week. To turn to textiles, in the cotton trade the advance on pre-war rates is given as 105 per cent., apart from "special increases" for particular classes of workpeople, including the important class of spinners. In the woollen and worsted industry in Yorkshire, "the recognised percentage increases vary considerably in different sections." For different classes, figures of 107 per cent. (subject to a maximum of 32*s*. 1*d*. a week); 85¾ per cent. (male piece-workers); 91 per cent. (female piece-workers); 64¼ per cent.; 106¼ to 125½ per cent. are recorded. In the boot and shoe industry unskilled men had received advances of from 87 to 93 per cent. These are exclusive of advances made to neutralise the loss of earnings due to reductions of hours.

At the time that this survey was published the cost of living figure stood at 105 per cent. over the level of July, 1914, having fallen from 110 per cent. in the previous month. In many instances, therefore, real wages appear to have been maintained, and in some cases advanced; for other classes of workers this was not so. Looking at wage-rates as a whole, the Ministry of Labour was apparently prepared to argue that they had been so adjusted as to allow of a substantial maintenance of real wages. This contention is corroborated by other sources, *e.g.*, the War Cabinet Committee on Women in Industry, where numerous figures for the percentage increase in women's wages in different occupations are worked out. The largest proportionate rise is a threefold increase recorded in the metal and munition trades.

Later events have the same tale to tell. The Wages (Temporary Regulation) Act would in any case prevent a reaction in the downward direction; although, as will be seen below, it is possible that all the king's horses and all the king's men could not set the economic Humpty-Dumpty up again, if he fell off the wall on a side they had forgotten to watch. During 1919 there have been many advances of wages, of which, however, a

very considerable number are simply designed to neutralise reductions of hours. Net increases were secured in the engineering, boiler-making and shipbuilding industries, and spread thence to many allied metal trades. The woollen and worsted industry ended the year with a total advance on basic rates of 125 per cent. for time-workers and corresponding increases for piece-workers; in several branches the basis rates were themselves raised. In the textile bleaching, dyeing, finishing, etc., branches, the war wages reached 120 per cent. over basis rates in Yorkshire, with additions also in the other centres of the industry. The boot and shoe industry secured national minima for adult men and women workers. Printers, operatives in the furniture trades, bakers, carters, tramway and omnibus workers, agricultural workers, certain permanent Government employees, and the great majority of Police Forces, are other important classes to whom advances have been made. Whilst these further increases in wages have been in progress, the cost of living figure has climbed to 125 per cent. Finally, we may observe that the results reached by private investigators bear out the general conclusion that the real wages of manual workers have not on the whole suffered any diminution, and have in important instances advanced. And the man in the street, at all events if he is a fixed salary earner, is emphatically of a like opinion.

How far do these data accord with the tendency for labour to sell for its value? It would appear that on the whole the orthodox view may still raise its head. It is true that industry has suffered from a shortage of capital in certain of its departments during the war. So far as this is the case, it would lead us to anticipate a diminished marginal productivity, and therefore a diminished value, of labour. But it is easy to exaggerate the shortage of capital; and Mr. Hartley Withers has need to accuse "those who talk so glibly of the enormous destruction of capital by the war" of "looking at economic questions through a financial telescope."[1] And it is quite certain that a capital famine, if it exists at all, is most unequally distributed—or was, so long as the war lasted—throughout industry. The munition trades certainly escaped, at the cost perhaps of others. In them the productivity of labour was most unquestionably very high. And it is noteworthy that it is these trades which led the way in the general upward movement, and saw some of the highest rises. Though there was an immense influx of labour into all occupations affected by the war boom—a cause in itself tending to diminish the marginal pro-

[1] *Problems of War-Time Finance*, p. 4.

ductivity, and therefore the rate of payment, of the labour engaged in them—yet this influence was easily overborne by the rising tide of demand. There seems no reason to doubt that the services rendered to the community by the workers in the great industries whose basis is coal and iron have at least maintained their value. Outside these industries there has been, and to some extent still is, a very considerable shortage of labour. Again we are told that where the shortage has been most acutely felt, there the rise was most prompt. Again the theorist is justified.

There is another feature of wage movements which also requires to be interpreted—that is, the tendency for wages frequently to rise proportionately more in the lower-paid than in the loftier ranks of labour.[1] There are two possible explanations of this phenomenon, of which the one bears out the established principles of distribution, and the other suggests that a germ of something new is struggling to life. Even supposing that the value of labour in these industries is unchanged, or at all events has not risen as fast as the (real) wages paid for it, an explanation may be found in that such labour was previously "exploited," in the only scientific use of that term; that is to say, that it received less than the value of its net product at the margin. In other words, there may be instances in which the factor labour, having been previously excluded from its theoretically allotted share of the product of industry, has, thanks to some oiling of the wheels, been enabled to move into its due heritage. Most probably it is in such cases as those of women's labour and of the less skilled occupations that these conditions may be assigned as contributory causes of the prevalence of rates of wages higher than would otherwise have prevailed. Of course, it is generally acknowledged that in occupations requiring only low grades of skill, and in women's industries in general, marginal productivity is itself low owing to overcrowding, but that does not preclude the possibility that clever industrial strategy may have in the past reduced the rate of remuneration below even this level. So far as rising wages are due to a readjustment of this kind, the principle of classical theory finds a better and not a worse realisation in practice.

In passing we may notice that the possible extent of such exploitation is, in the view of one school of thought, very wide indeed. Those who base their economic theory ultimately on the

[1] Mr. J. E. Allen adopts as one of his conclusions, in a paper read before the Royal Statistical Society, the view that the rise in the lower grades of wages has more than kept pace with the depreciation of the currency. See the *Economist*, Dec. 27, 1919. Corroboration may be found in the figures of the *Labour Gazette* of which some are quoted in the text.

Marxian doctrine of surplus values see in a rise in the remuneration of labour (even in the face of circumstances tending to degrade its value) nothing at all incompatible with the principle that the reward of labour ought to be equal to the value of its net product; the fact that this result has not been achieved previously is ascribed to the general wrongness of the nature of things. In the terminology of the more socialistic[1] school of economists, however, the use of the term "ought" has a subtle ethical connotation which is rather different from the logical compulsion intended by the classical school. The latter's contention that the reward of labour ought to be equivalent to its net product at the margin is on a par with that of the schoolboy, who, when faced with an unusual construction in a passage of Cicero, applied the standard of his primer, and remarked, "It *ought* to be in the accusative." Secondly, the omission of the adjective "marginal" from the socialistic formula of distribution removes this poles asunder from the doctrines of rival schools. Be this, however, as it may, there is doubtless a certain field in which both schools can hail a rise in wages as marking the transition of their principles from the category of becoming to that of being; only the Marxian field will be the wider.

On the other hand, there is a possibility that the relatively more rapid progress of wages in the less-skilled occupations is partially due to the growth of a principle which is definitely designed to oust the commodity-view of labour. This is closely bound up with what was noticed at the outset as the second of the great developments affecting wages in the last few years—the invention of the bonus. A curious feature of the modern bonus is the difficulty that the powers that be have experienced in deciding whether the bonus should vary directly or inversely with basic rates of wages. The latter policy has a fairly wide vogue extending across the globe.[2] The same result of a proportionately more favourable treatment of the lower grades is brought about also by the custom of paying a flat rate of bonus or war wage to all alike. The railwaymen's famous 33*s*., now risen to 38*s*., is one of the best-known instances. It is possible that the significance of this practice lies partly in that it is an attempt to give expression to the idea of a minimum standard of life and comfort. No

[1] I am aware that this adjective is illogical and obsolete. I use it, however, in default of any other, to describe a school of thought which, though possessing definite characteristics, has failed to acquire a more appropriate name from the lips of either friend or foe.

[2] The bonus paid to Japanese railwaymen, for instance, favours the lower relatively to the higher grades.

one is to receive less payment than will enable him to maintain this standard. If the value of his labour happens to be less than this minimum—well, the Peace Treaty has rendered obsolete the commodity-view of labour. Such, perhaps, is the argument. Wherever the policy of paying wages in excess of the value of the marginal net product of the labour which "earns" them becomes actual, there the Paris Conference plants a flag of victory on the economist's grave. But many ghosts will rise after the slaughter of Paris, and the economist is likely to be among them.

Another minor indication of the way things are going is given by isolated instances in which the principle of determining wages by family obligations has struggled to put in an appearance. The principal examples appear to be certain municipal tramways.[1] Here, again, the intention appears to be to make needs rather than values the criterion of payment.

Much the most important change in methods of industrial remuneration has, however, been brought about by the invention of the sliding-scale which aims at keeping real wages constant by eliminating the influence of fluctuations in the cost of living. The most conspicuous example of this principle is seen in the recent Railway Settlement, which provides that, at the close of the temporary stabilisation period in September, wages shall go up or down at the rate of 1*s*. for every five points' change in the cost of living index. A lower limit is set to the scale by the provision that in no case shall wages fall below a figure which is 100 per cent. above the average pre-war rate; thereafter the cost of living may do its worst (or best), but money wages will stand firm. In the matter of such a scale, however, the railways are by no means an instance of splendid isolation; a similar principle already governs wages in many other industries. The textile bleaching, dyeing, printing, and finishing, etc., trades were the pioneers. Their example has been followed in the woollen and worsted industry by the spinning, manufacturing, wool-sorting, wool-combing, mohair and alpaca sorting, and warehouse sections of the industry in the West Riding, and by the flannel weaving trade in the Rochdale district. The worsted and lambswool spinners of Leicester have done likewise. Machine calico printing, asbestos manufacture, textile warehousing (Manchester), and shuttle-making (Leicester) are other occupations in which like methods have been adopted. The details vary in each case, but the general principle that wages are tied to the cost of living figure is everywhere the same.

[1] An effort to introduce a like principle into private industry is recounted in the *Minority Report of the Committee on Women in Industry*, p. 263*n*.

How do arrangements of this kind affect the question whether labour is or is not a commodity? So far as regulation by an index-number eliminates the arbitrary influence of currency disturbance upon real wages, it is a force which helps rather than hinders the realisation of old-fashioned principles of distribution. Before the war, faith in the stability of the monetary unit, if it had not a religious intensity, was, at least amongst the general public, far removed from the cynical agnosticism prevalent to-day. And, after all, it is the ideas of the *profanum vulgus*, odious though these may be to the economic mind, which direct economic forces. In consequence of this faith, when the currency did begin to indulge in antics, a maladjustment tended to result. Money wages would remain obstinately fixed, with the result that the real payment to labour ceased to correspond with its value in terms of commodities. As a general rule the demand price for labour would adjust itself first, since those whose psychology determines this price were usually the first to recognise changes in the value of money. So long as the supply price in any industry remained unadjusted, a certain number of men would be thrown out of employment if the value of money had risen, or be attracted into the industry in the converse case. It was thus that the principle that the wages of labour must be equivalent to its value would reassert itself. By acting on the numbers employed it could ensure that the marginal productivity of those who remained in the industry was equivalent to the new real value of the constant money wage. Ultimately the supply price would adjust itself also, and equilibrium be established (other things being equal) with the same numbers employed at the same real, but an altered money, wage. The simple use of an index-number would avoid this very unsatisfactory process, and would be commendable if only because it eliminated the fluctuations in employment incidental to the circuitous methods otherwise involved. As a corollary, it follows that the directive force exercised by wage-rates would less often be misdirective. When the wages in any industry are above or below the natural price of the quantity of labour there employed, they tend to attract labour into the industry or to extrude it thence, until the equivalence of wages to the value of labour is re-established. If, however, the temporary disparity is due to unrecognised monetary causes, the attraction or expulsion is as arbitrary as its cause. Labour, therefore, is directed to the different parts of the economic system by sign-posts upon which the money machine has played a practical joke. One of the principal merits of treating the labour of

a human being as merchandise is that this treatment professes to set in motion an automatic flow of labour to different occupations in accordance with social needs. The regulation of wages by an index-number would remove one of the causes by which this profession may be rendered false.

But not all changes in the cost of living are due to the vagaries of the currency. The cost of living has fallen very much in the past owing to improvements in the methods of production—in other words, to the growing productivity of labour. It used to be accepted that fixity of money wages provided a reasonable means of distributing fruits of this kind of economic progress. And, indeed, this view was quite unexceptionable in the economist's eyes. A change in the productivity of labour not merely does not oppose, but imperatively demands a change in its remuneration. If an index-number is adopted as the regulator of wages, the equivalence of wages to the value of labour will be disturbed by developments of this kind. Exclusion from such prospective benefits appears to have been one of the reasons for the reluctance of the railwaymen to accept the recent settlement.

Moreover, the sliding-scale, especially when it has a rigid bottom, almost imperceptibly induces the idea that its function is to ensure that labour will not suffer from rising prices, even when its real value is falling, and economic principles clamour for a reduction in its remuneration. The sliding-scale provides an easy transition to the view that wages ought not, and need not, have any relation to what industry will bear. Its adoption is to this extent a victory, *for the time being*, for the Peace Treaty's formula. Moreover, when the index is of the nature of that which controls the sliding-scales at present in force, the idea that the scale is an engine for keeping your position irrespective of the movements of values is especially easily developed. An index-number is of necessity a very imperfect index even of that which it professes to indicate, as the discrepancies of different numbers, and the dubious assumptions on which alone their construction is possible, suffice to show. But in the measure that an index-number attains to its ideal of a representative character, it may be expected faithfully to reflect such variations of the general level of prices as have their origin in monetary and not industrial causes. As I have pointed out, the regulation of wages by such an index has, from the point of view of economic theory, this much to be said for it, that it would make for the elimination of certain of those fluctuations in real wages which upset rather than secure the equivalence of wages to the value of labour. It

would shorten that "lag" of wages behind prices which was an accepted fact in pre-war treatises on the subject. Even the best index-number might, however, tend to the "artificial" maintenance of real wages. *A fortiori* an index of the cost of living would lead in this direction. The index of the cost of living by which it is popular to regulate wages at the present time comprises the principal articles of food, clothing, fuel and light, house-rent, soap, soda, domestic ironmongery, pottery, tobacco, fares and newspapers, "combined in accordance with their relative importance." These commodities are chosen not because they are representative of the movements of that convenient abstraction "general prices," which is the criterion of selection for an index-number proper, but because they are the most important items in the working-class budget. The idea of maintaining a minimum standard of consumption of soap, soda, tobacco, etc., shines clearly through the construction of this index. In the result, wages in any one industry are to be regulated not in such a manner as to draw a veil over the disorderly behaviour of the currency, but in accordance with an index which, while it is no doubt affected by monetary disturbance (who or what is not disconcerted by this ugly duckling of the economic nest?) primarily reflects the relative position of certain other particular industries. That is to say, wages in any one industry are to be graded by what certain quite other industries might bear. And inasmuch as the prices ruling for the articles comprised in the cost of living figure are themselves largely influenced by wages in other industries, the circle is completed, and the kitten is well set on running after its own tail.

So, altogether, recent events show that we are making some attempts not to treat labour as merchandise or as an article of commerce, and to pay it in accordance with our preconceived notions and not with its value. It is no doubt possible to pay a man for being a man, to pay a woman for being a woman, and even to pay a child for being the offspring of its parents and a potential adult. (This last, if it is to be an integral part of a novel method of distribution, will make Malthus turn in his grave and set the neo-Malthusians shivering.) Subject to the elementary limitation that it is not possible at any given moment to distribute more than the total product then in existence, it is *in certain conditions* quite possible (at least on paper) to distribute wealth on any principle we please. What, however, is wholly impossible, either on paper or off it, is to do this by a mere regulation of wages. It has already been observed that when the

payment for labour in terms of goods became divorced before the war from the value of its product, an adjustment was ultimately effected *through the numbers employed.* This principle is as good now as it was then; and it is as applicable to cases in which the value of labour and its payment have been deliberately parted, as to cases where the separation has come about unawares owing to external causes, of which those connected with money are the most obvious. I have already hinted that the economist will rise from his grave, in spite of the Peace Treaty's triumph; that the economic Humpty-Dumpty will not stay on the wall, in spite of the machinations of the sliding-scale. It is through reactions on the numbers employed that these events will be realised. Here, then, is the answer to the third of the main questions which were propounded at the outset. The treatment of labour otherwise than as merchandise or an article of commerce involves in the long run regulation of the numbers of persons employed, as well as of the rates which are to be paid to them. For as soon as the standard required by human beings whose labour is not merchandise rises above the value of that labour, a force is set in motion tending to drive them out of their employment, until the increase in the value of that labour which remains restores the equilibrium. Nothing but friction will keep them employed at all, and even in the gritty wheels of modern industry friction impedes, but does not for ever prevent.

In this connection we may recur to the fact that attempts to get away from the treatment of labour as a commodity have not yet passed the duration of the short period. And the short period has been a period of boom. What will happen when the long run brings its turns of slack trade? How will it be possible to prevent unemployment if and when the value of labour falls and its remuneration is tied fast? The difficulties will no doubt be postponed longest in the case of such workers as the railwaymen. The railway industry is one in which employment is exceptionally constant; it is an industry whence it is particularly difficult to expel labour even when there are strong forces working to that end. Still, it is not impossible to reduce employment even on the railways; it is certainly possible to refrain from increasing it to the extent that it would otherwise have been increased. In the event of a fall in the value of the work performed by railwaymen, the recent settlement must entail unemployment, or less employment than would otherwise have been available. The same consequence will result (and more quickly in industries where the volume of employment is less rigidly defined) wherever

real wages are tied fast and the value of labour is falling. The only way by which the treatment of labour as a commodity can actually be escaped is by regulation both of wages and of numbers employed.

But, of course, when we have reached this point, we have virtually renounced an individualistic system of industry altogether. And, after all, is not that the logical consequence of the high-sounding formula which is embodied in the Peace? It has been very truly remarked that the establishment of a national minimum wage is the nucleus of a Ministry of Distribution. (Perhaps that is why the Government has apparently shirked the grievous burden and accepted the principle of a minimum wage varying from trade to trade, and so presumably having some reference to the old-fashioned principle of what industry will bear, in the Minimum Wage Bill). It might indeed be possible in theory to regulate both wages and numbers employed by some kind of super-sliding scale. If this should result in paying labour more than its value, the wherewithal might conceivably be obtained by exploiting the other factors of production. If we hold that payments to capital are largely of the nature of a surplus, and that the supply of capital is controlled by circumstances independent of its remuneration, we may see a fair field for paying labour more than its value by sweating capital. But we are here on very uncertain ground; and it would seem that in practice the difficulty of keeping real wages up and keeping employment up also in the face of a falling value of labour would be insuperable.

The only practicable way to introduce a novel principle of distribution would in fact be to surrender the quasi-automatic system of industry which is the fundamental hypothesis of the commodity theory of labour. A deliberate and a conscious organisation of industrial forces for the satisfaction of our needs is quite conceivable. If production were arranged in accordance with statutory orders, if the factors of production were disposed by the edicts of the community instead of by the automatic directions of comparative values, then, and then only, would it be possible to treat labour otherwise than as a commodity. The classical principle would then be superseded not because it is false, but because its premises had themselves been superseded. Within its own sphere it would still be as inexorable as ever; but the fact that industrial phenomena had moved into a new sphere would render its workings no longer of practical interest. It may well be questioned whether the authors of the phrase which heads the Labour Charter of the Peace Treaty have adequately

realised what a radical reconstruction of industry their *dictum* implies.

Herein, perhaps, lies much of the significance of the modern nationalisation movement. Such industries as were nationalised before the war had been removed from private hands for a variety of technical and general causes. It is true that the anticipation of better pay and better conditions caused the workers to use their influence in favour of nationalisation on more than one occasion, and to press, often successfully, for these advantages after the transition to State management had been effected. But I do not know of any important instance of which it could be said that the desire to modify the distribution of the product of industry had been the main effective cause of nationalisation. It was an incident, not a cause. The socialisation movement of to-day is dressed in different colours. Amongst its *primary* motives is a redistribution of wealth and the destruction of the commodity-view of labour. The State, of all people, finds it hardest to discharge its employees; in this respect all State industries are like the railway industry (whether or not this is nationalised), "only more so." Indeed, continuity of employment and better pay march hand in hand through the manifestoes of the nationalisers. Moreover, it is only by wholesale nationalisation that it is possible to abolish the rule of the classical principle of distribution, by the abolition of its premises in the manner above described.

In this connection we may glance at two actual examples of recent socialisation. Insignificant in themselves, they are illustrative of the possibilities which nationalisation alone affords of fancy distribution. Under an Act of March, 1919, draft regulations for the socialisation of the Austrian coal and electrical industries have been promulgated, which comprise the following principles of distribution for the former industry. The net profits from the production of coal are to be allocated on the basis of 10 per cent. to reserve fund; 10 per cent. for extensions and explorations; 20 per cent. to the salaried staff and the workers; 60 per cent. to the State and the Provinces. In the marketing branch of the industry (to be handled by a separate body) the division is to be 20 per cent. to general reserve; 13⅓ per cent. to the Works Council for the benefit of the staff and workpeople; 66⅔ per cent. to the State, which may use it as a special reserve fund. Secondly, a similar law for the socialisation of the boot and shoe industry provides for a socialised undertaking managed jointly by the State, the Co-operative Wholesale Society representing urban consumers, and the Wholesale Purchase Society of

the Agricultural Trading Association, representing rural consumers. Net profits are to be divided as follows: one-quarter to manual and salaried workers, one-quarter to the State, and one-quarter to each of the two Co-operative Associations. The undertaking does not, indeed, cover anything like the whole industry, but the extension of socialisation is contemplated.

These illustrations are not over-startling; 20 per cent., 13⅓ per cent., or even 25 per cent. of net profits is not an overwhelming addition to the payment of labour. And so long as we are left in the dark as to the first charges to be deducted before striking net profits, the figures are not in themselves of much value. Moreover, if the capital required for these undertakings is obtained by loans subscribed by individuals, if the workers are recruited in the ordinary way by the relative attractiveness of the job, then the State for all its mightiness will still be bound by the old shackles of economic text-books. The French Government is finding the truth of this. The State railways, we are told, are finding difficulty in attracting sufficient workers partly owing to the fact that "so many of the railway employees have transferred their labour to better-paid fields."[1] *Per contra* the Bruay miners are deserting the mines because the Government offers 20 francs a day for navvies, and they have latterly earned only 15 to 17 francs in the mines.[2] Still, this arbitrary distribution of profits in these socialised undertakings in Austria does at least contain the germ of more radical redistributions. The germ may die inactive, but that does not affect the fact of its presence. These and like illustrations of the modern nationalisation movement (doubtless more startling examples could be quoted from the first flush of Russian nationalisation) suggest that when the State has taken upon itself the tasks of accumulating and distributing capital, and has the power to direct the flow of labour by deliberate regulation, it will be able to do what it likes with the entire product of industry, as it already does with net profits. It need no longer give offence by treating labour as merchandise. But it is only when socialisation has become a system that this will be possible.

In conclusion, it may be suggested that the attempted revolt against paying labour in accordance with its value is part of a wider attack on the whole economic concept of value. The movement is facilitated by the currency confusion and the obscuration of the forces ordinarily determining values, of which one consequence is the hopeless ignorance of the public mind as to what is a "proper price" for any class of goods. Efforts at State

[1] *Economist*, 3 Jan., 1920. [2] *Ibid.*, 10 Jan., 1920.

regulation of prices seem to be a kind of compromise with the influences which seek to undermine the practical truth of the theory of value. But, whatever the attitude of State and public, it remains true that those who elaborate schemes for the radical reconstruction of society embody in them new methods of price-fixation. To quote only one instance, Mr. Cole has lately observed[1] that in the Guild Socialist State "the community will fix prices." So be it. The community will doubtless have ideas of its own; but the value-concept as understood by economists is perhaps more fundamental than the man in the street is wont to think, supposing he ever gives his mind to matters so abstruse. Is there any guarantee that the old principles of desirability and scarcity will revenge themselves any less upon the effort to fix prices on the lines of a new conception of value, than do the words of Ricardo upon the *fiat* of the Peace Treaty?

BARBARA WOOTTON

[1] At a public meeting in the autumn of 1919.

THE PUBLIC FINANCES OF IRELAND[1]

It is the aim of this paper to notice as simply as possible the changes produced by the war conditions in the revenue and expenditure of Ireland: as these are exhibited in the annual returns popularly known as the "Treasury White Paper." There are always, of course, two White Papers; but one of them is a preliminary computation which leads up to the other. The principal White Paper is that entitled "Revenue and Expenditure (England, Scotland, and Ireland)," of which the latest issue is for the financial year ended March 31st, 1919. (H.C. No. 163 of 1919, price 2*d.*) The other carries the clumsy title, "Imperial Revenue (Collection and Expenditure) (Great Britain and Ireland)"; it is mainly a computation by which the Revenues as actually "collected" in Great Britain and Ireland are adjusted so as to estimate the "true" Revenues really paid by the inhabitants of those two islands; but it also prints a retrospect of the figures for both Revenue and Expenditure over past years back as far as 1819. (Latest issue is H.C. No. 162 of 1919, price 3*d.*)

I.—*The White Paper on Financial Relations.*

Whenever we use these White Papers we should pause to remind ourselves of the origin, the artificial character, and the quite unconstitutional validity of these seductive official documents. The financial relations of England, Scotland and Ireland are so complicated that everyone welcomes the simplified statistical statement which these documents present with all the authority of the Treasury. This simplification has been achieved, however, by making numerous artificial assumptions to which a casual reader may remain wholly inattentive.

Many of these assumptions, on the Revenue side of the account, are innocent enough: being merely a process, based on sound statistical principles, for estimating the true figures of "revenue contributed" wherever the actual figures of the "revenue collected" are obviously insufficient until further adjusted. Formerly, there was a good deal of suspicion in

[1] Read before the Statistical and Social Inquiry Society of Ireland, January 23rd, 1920.

Ireland about the cryptic methods used by the Treasury staff in making out their estimates of the "true" revenue really paid by each country. But the investigation into the matter, made publicly and thoroughly in 1911, by the Committee on Irish Finance (known as the Primrose Committee) has now satisfied everybody that the adjustment of the Revenue figures in the Treasury White Paper is properly done: so there the estimated figures must be accepted as being as close to the realities as the available statistical material can enable us to get. In other words, the reports of that Primrose Committee (Cd. 6153 of 1912, price 3½*d.*; and Cd. 6799 of 1913, price 2*s.*) are the explanatory primer which must be read by anyone who seeks to understand the Treasury White Paper. It may, however, be remarked that fresh doubts have lately arisen as regards Revenue since the war: owing to the large commercial operations of Government Departments in the purchase and sale of foodstuffs and raw materials, with the object of controlling prices and distribution. Whether the large profits made by these Departments in the course of this control have been properly brought into account, and allocated as revenue derived from particular portions of the United Kingdom, is a matter upon which I can express no opinion; but it would be very advantageous if the public could now be supplied with the fullest information about this very indirect form of non-tax receipts. In the Miscellaneous Non-Tax Revenues for 1918-19 there occurs an item called "War Contributions," amounting to £40,371,000; but this is not allocated as between England, Scotland, and Ireland, *i.e.*, it is placed under the category of "Derived from other Sources." How much revenue has Ireland contributed in that item?

When we turn to the Expenditure side of the account—where, of course, we have to do with Exchequer Issues, not with the final or audited expenditure—we find in the White Paper that the whole expenditure of the United Kingdom has been subdivided therein into four distinct expenditures described as expenditure for English, Scottish, Irish and Imperial Services respectively. In the words of the original White Paper (H.C. No. 329 of 1891):—"All items of expenditure have, as far as possible, been divided between the three kingdoms according as expenditure is incurred on English, Scottish, and Irish services, *without there being drawn any inferences* as regards the equity of the contributions or the advantage derived from the expenditure." In the picturesque language of Sir Edward Hamilton, an item of expenditure is deemed to be "for the special use of

Ireland" if the item would "disappear supposing Ireland were sunk beneath the sea." This is quite a good plan *if the only consideration be the making out of an account* of what the governing of Ireland is costing the United Kingdom. But unless we bear that one purpose in mind we may be misled, for it leads to some curious and unsuspected consequences. I will give three examples: (1) The cost of the Lord-Lieutenant is taken as Irish; but the cost of the Crown is not English—it is taken as Imperial. (2) We have been always told, down to 1891, that the cost of the Royal Irish Constabulary was an Imperial Charge; but the White Paper at once classified it as an Irish Charge. (3) We have heard that Great Britain had advanced many millions of pounds to carry through a scheme of Land Purchase for Ireland; but the White Paper shows that every penny of the cost has been assigned as a charge on Ireland. Even when the English Parliament has by legislation expressly conferred an absolutely "free gift" upon certain people in Ireland (*e.g.*, the £12,000,000 granted under Clause 47 of the Wyndham Land Act, 1903, to form a "Land Purchase Aid Fund" which was to add 12 per cent. to the price the landowner would get above what the tenant could agree to pay him), then the Treasury White Paper shows that the "free gift" is wholly charged against the recipient, Ireland—it can never be charged there against the generous giver, England.

Now, as I said, this is all right if we are only "making out an account," and that too "*without there being drawn any inference.*" But are no inferences being drawn? Suppose, as in some recent years, the expenditure on Irish Services happened to exceed the estimated "true" revenue contributed by Ireland: then the inference has been widely drawn that Ireland was insolvent. Let us stress the significance of the mere fact that this one inference has been drawn and has been accepted everywhere—even in Ministerial circles. It means that this seductive little White Paper has now so fastened upon itself the attention of everybody that it operates on the public mind just like as if it were an Act of Parliament which had repealed the Act of Union between Great Britain and Ireland and also the Act of 1816 that consolidated the two Exchequers. That may seem a somewhat startling statement; but not to those who understand me. It is high time that we recall to mind that the White Paper has behind it the authority of no Act of Parliament, that it is nothing more than a statistical exercise which a few Treasury officials have worked out on a plan of their own devising by way of "making out an account."

II.—*Financial Rights of Ireland under the Union.*

For the sake of a truer perspective, I want to interrupt myself just here while I briefly relate the constitutional privileges in matters of finance which are guaranteed to Ireland under the Act of Union. They are defined in Article VII. of the Union.

The fundamental arrangement therein accepted by England is that (after certain circumstances have arrived, as specified) "it shall be competent to the Parliament of the United Kingdom to *declare*" that a new system of indiscriminate finance shall thenceforward obtain. This new system is described as one of "contributing indiscriminately, by equal taxes imposed on the same articles in each, to the future expenditure of the United Kingdom." Then follow the words—"That, *from the period of such declaration*, it shall no longer be necessary to regulate the contribution of the two countries towards the future expenditure of the United Kingdom, according to any specific proportion, or according to any of the rules hereinbefore prescribed." Furthermore, it is expressly stated, as a protection for Ireland, that this system of indiscriminate taxation, when it is in operation, shall be subject to two limitations, namely :—(1) "Such particular exemptions or abatements in Ireland, and in that part of Great Britain called Scotland, as circumstances may appear from time to time to demand"; (2) "In regulating the taxes in each country, no article in Ireland shall be made liable to any new or additional duty, by which the whole amount of duty payable thereon would exceed the amount which will be thereafter payable in England on the like article." (English Statutes, 39 & 40, Geo. III. c. 67.) In short, the tax in Ireland may equal, but must never exceed, the like tax in England.

Now, some four Committees of Parliament from 1811 to 1815 had reported that the specified circumstances had arrived which made it competent for Parliament *to declare* for indiscriminate finance. Then by a statute of 1816 Parliament "declared" and set up this indiscriminate finance: the same statute also amalgamated the two Exchequers as from January 5th, 1817 (56 Geo. III., c. 98). Pursuant to that Act all revenues in Great Britain and Ireland now constitute one general fund, called the Consolidated Fund of the United Kingdom; and *that fund has to be charged with and indiscriminately applied* to (1) the respective services of the British and Irish debts; (2) the Civil List; (3) all other services previously charged on the separate Consolidated

Funds of the two Kingdoms; and (4) supply services of the United Kingdom.

This word "indiscriminate," of course, rules out any discrimination on geographical lines. Let us thoroughly understand that it applies alike to Revenue and Expenditure. In words once used by Lord MacDonnell: "The contract which England has made with Ireland is not unilateral, but bilateral. Under the Act (of 1816) indiscriminate taxation goes hand in hand with indiscriminate expenditure in both countries. If England imposes indiscriminate taxation on Ireland, as she does, Ireland has the right to claim indiscriminate expenditure. The proceeds of Irish and British taxation flow into one Consolidated Fund, and the claims on that fund of each part of the United Kingdom are not limited by that part's contribution to it, or by geographical considerations: they are limited only by that part's necessities, and by the capacity of the fund to satisfy them, consistently with meeting the necessities of the other parts." (Address to the Institute of Bankers in Ireland, November 30th, 1911; *Journal* of said Institute, dated January, 1912.)

One further point may be noted before I resume. There was nothing in the Act of Union about any future amalgamation of the two Exchequers. On the contrary, it laid down that even when indiscriminate finance came into operation and the contribution to joint expenses in any fixed proportions was ended, yet the "separate debts" of the two countries were still to be provided for by separate Budgets. Now, the Act of 1816 went further, for it united the separate debts, in order to have in the future but one Budget for the United Kingdom. This taking over of Ireland's separate debt by England is what Mr. Spencer Walpole's *History of England* (Vol. I., p. 415) has called "the greatest boon ever conferred by one people on another." Let us understand what occurred. The cash value, at the current prices of 1816, of the entire separate debt of Ireland was worked out for the Select Committee on the Taxation of Ireland in 1864, and it was found to be £86,992,931. (See H.C. No. 513 of 1864, Appendix 14, p. 410.) That included funded and unfunded liabilities, viz.:—(1) *Permanent Debt Stock* of £113,680,158 nominal, valued at £78,825,724; (2) *Terminable Annuities*, valued at £2,862,592; (3) *Exchequer Bills*, valued at £5,304,615: making the total of £86,992,931. Ireland was "relieved" of the burden of this separate debt: she was then made to pay it three times over. The inexorable White Paper has shown how it was done. It sets out the true revenue contributed by Ireland and the

separated expenditure upon Irish Services for each tenth year back to the year 1819. (See H.C. No. 313 of 1894.)

IRISH FINANCE AFTER 1817.

Single Year.		True Revenue.		Irish Expenditure.
1819–20	...	£5,256,564	...	£1,564,880
1829–30	...	5,502,125	...	1,345,549
1839–40	...	5,415,889	...	1,789,567
1849–50	...	4,861,465	...	2,247,687
1859–60	...	7,700,334	...	2,304,334
1869–70	...	7,426,332	...	2,938,122
		£36,162,709		£12,190,139

These tenth years are set out as sample years in the White Papers since. (H.C. No. 162 of 1919.) We must multiply by ten to obtain approximately the whole contribution of Ireland to the Consolidated Fund of the United Kingdom during those fifty years, and the whole expenditure on Irish Services met by the same Consolidated Fund during the same period. The Consolidated Fund received 360 millions sterling from Ireland and spent 120 millions sterling upon Ireland, retaining a profit of 240 millions sterling. Comment, in the "breezy" style of Lord Fisher, might be: "How is that for boon? I don't think!"

III.—*Conclusion as to Irish Expenditure.*

My purpose in making this digression must now have become evident; I wanted to show how unconstitutional is the process by which, in their White Paper, the Treasury had presumed to sub-divide the whole expenditure of the United Kingdom into four distinct expenditures, described as for English, Scottish, Irish, and Imperial Services respectively. That is not to belittle its utility as an analysis of the financial relations at the moment. But a knowledge of the constitutional position of Irish finance, as that position was set up by the Act of 1816, is necessary to avoid misleading inferences being drawn from the White Paper as to the solvency or otherwise of Ireland. The relative dimensions of Ireland's Revenue and Expenditure, as shown in this White Paper, gives us no information whatever as to Ireland's solvency—the plain truth of the present position being that Ireland cannot be insolvent so long as the Consolidated Fund of the United Kingdom remains solvent.

To return to the process by which the Treasury has drawn up what it describes as "expenditure on Irish Services," the

principle applied was examined carefully by the Primrose Committee; and I will quote their deliberate verdict—the italics being mine. Their report declared "that the method of classification adopted by the Treasury appears to us, *for the purpose that the Return is intended to serve*, to be sound and, indeed, the only one appropriate" (p. 3). "All that inclusion of a service in the Irish column means is that the service is, *as a matter of fact*, an Irish service. To have sought to convey more than this . . . would have been inconsistent with the principle on which an account or a statistical statement must be drawn up. In neither is it legitimate to arrange figures so as to show not merely facts, but also the deductions that the framer may desire to see drawn from the facts. *The presentation of facts and the drawing of deductions from them are separate processes which should be kept distinct or error and confusion are certain to result.* From the point of view of the present inquiry"—(*i.e.*, Primrose Committee)—"it seems to us that *the purpose* of classifying expenditure as local or Imperial *must be regarded simply as a means of supplying the material for determining* what charges must be provided for in Imperial and Irish votes respectively, in the event of the grant of local autonomy for Ireland" (p. 8, Cd. 6153 of 1912).

We come, then, to the conclusion that, "*for the purpose that the Return was intended to serve*," the Treasury White Paper is right enough: its purpose is merely to assist the Government in drafting a workable measure of Home Rule. In the year 1890 Mr. Goschen appointed a Committee on financial relations, with a view to an equitable balance being found for "*grants in aid*" to the three parts of the United Kingdom. That Committee held just one meeting, at which the Treasury was asked to prepare a summary statement for its future consideration. Then a General Election intervened, and that Goschen Committee never met again. When the statement of the Treasury was ready there was no Committee in existence to receive it. So the statement was simply laid before the House of Commons, and was printed as No. 329 of 1891. Such was the almost accidental origin of this famous White Paper: first drafted by Sir Reginald Welby, afterwards Lord Welby. For the Home Rule debates of 1893 the White Paper was reprinted, in an improved form, as No. 93 of 1893; after which date it became an annual return. The other White Paper (computing the "true" revenue) first appeared as No. 313 of 1894; and it also became an annual return. Now that this White Paper has reached its twenty-eighth annual issue,

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many people have forgotten its original limited purpose; and it has become invested with all the sanctity and authority of an accepted constitutional instrument which had itself settled and defined the financial relations of these three Kingdoms. But, of course, the Treasury never made any such claim for it. The White Paper is not a constitutional instrument at all, and has never settled or defined anything; it is an approximate statement of the facts at the moment, based on numerous artificial estimates and assumptions because these provide the only means by which the real facts can be even guessed at.

IV.—*The Irish Surplus.*

An Irish surplus means nothing in finance except the arithmetical fact that the true revenue obtained from Ireland has happened to exceed the expenditure on Irish services. It is sometimes called Ireland's "contribution" towards Imperial Expenditure, because it is disposable by the Exchequer. But Ireland is, at present, under no constitutional obligation to pay any such "contribution"; and it is the merest accident whether Irish revenue and Irish expenditure balance or not. "Since 1917 the Exchequer of the United Kingdom has taken whatever revenue Ireland has yielded, and in return has accepted responsibility both for the capital liabilities and for the administrative expenses of Ireland; and, in consequence, Ireland's contribution to Imperial expenditure has been represented by the amount by which her true revenue has exceeded her own local expenditure." (Primrose Report, Cd. 6153 of 1912.) As for "capital liabilities," I have shown that Ireland has discharged them in full by the huge surpluses previous to 1870. Since that year, 1870, Irish expenditure has been catching up upon Irish revenue, and finally passed it when the cost of Old Age Pensions began in 1909. Then for five years running there was a deficit, and the British Exchequer had to "contribute" to Ireland. In this period the two years, 1909-11, must be added together and the totals halved to get the mean of the two years; because the rejection by the House of Lords of Mr. Lloyd George's first Budget delayed the collection of revenue for the year 1909-10. The recent war taxation has so greatly increased Irish revenues that the period of deficits ended after 1914-15, and we have now had four years with huge Irish surpluses. This transformation is visible in the following figures (from the White Papers)—viz.:—

IRISH REVENUE AND EXPENDITURE.

Year		True Revenue.	Local Expenditure.	Balance.
		£	£	£
1907–8	...	9,621,000	7,810,000	+ 1,811,000
1908–9	...	9,250,500	8,667,500	+ 583,000
1909–11 (*mean*)	...	9,931,000	11,029,000	– 1,098,000
1911–12	...	10,688,000	11,533,500	– 845,500
1912–13	...	10,731,500	12,137,000	– 1,405,500
1913–14	...	11,134,500	12,357,000	– 1,222,500
1914–15	...	12,389,500	12,656,000	– 266,500
1915–16	...	17,929,000	12,597,000	+ 5,332,000
1916–17	...	23,766,500	12,686,000	+11,080,500
1917–18	...	26,865,000	13,002,000	+13,863,000
1918–19	...	37,275,000	22,161,500	+15,113,500

Caution is needed when making comparisons between the later years in this table. In the last two years Irish expenditure did not jump from £13,002,000 to £22,161,500 as the table shows. Everybody knows that the war was financed out of lump sums called "Votes of Credit." But, besides paying for the operations of warfare, these Votes of Credit have also been paying for certain forms of Civil Government expenses which were incidental to war conditions, such as *War Bonus* to aid the salaries of Civil Servants, increased scale of *Old Age Pensions*, *Out-of-Work Donations*, and the *Bread Subsidy*, to keep the price of the loaf from soaring. Evidently this part of the expenditure from Votes of Credit was shared by England, Scotland and Ireland in amounts that could be separated and allocated as local expenditures. This was not done in the White Paper until last year; but in 1918-19 the Exchequer Issues from Votes of Credit, totalling at 2,198 million pounds, have been allocated, viz. :— 2,115 millions to General Services; then £65,312,500 to English, £8,310,000 to Scottish, and £8,624,500 to Irish Services, respectively. It is this further item of £8,624,500 which has lifted Irish expenditure last year up to the high figure, £22,161,500. Deduct it, and the balance £13,537,000 is the figure which compares correctly with the £13,002,000 assigned to Irish Expenditure in the previous year, 1917-18. In fact, it is evident that the £13,002,000 for Irish expenditure in 1917-18 is *exclusive*, whereas the £22,161,500 in 1918-19 is *inclusive*, of Ireland's share of benefit from this "Votes of Credit" outlay. This kind of discrepancy has often appeared before in the White Papers, and renders difficult any comparisons between different years.

V.—*Transformation of Irish Revenue.*

It is on the Revenue side that the war has produced the largest changes in Irish finance, and these changes are of great interest. There has been not merely a large increase, but also a change of character. Before the war the revenue "collected" in Ireland had always been larger than the true revenue paid by Ireland ever since the equalisation of the Spirit Duties in the 'fifties by Gladstone, followed by Disraeli—*i.e.*, the correction applied to the "collected" figures has always been a minus. But war taxes on the consumers of imported goods (like tea, sugar and tobacco) and the lowering of the exemption limit for income tax have, between them, quite transformed the Irish Revenue Account. Let me contrast a pre-war year, 1913-14, with the post-war year, 1918-19—viz. :—

IRISH REVENUE.

1913–14.			1918–19.	
Collected.	True.		Collected.	True.
£	£		£	£
3,006,000	3,326,000	Customs ...	6,081,000	9,744,000
5,842,000	3,359,000	Excise ...	7,838,000	4,825,000
1,079,000	1,079,000	Estate Duties	1,238,000	1,238,000
336,000	371,000	Stamps ...	580,000	619,000
1,162,000	1,480,000	Income Tax ...	5,926,000	8,808,000
—	—	Excess Profits Duties.	7,484,000	10,040,000
12,000	12,000	Land Values Duties.	4,000	4,000
11,437,000	9,627,000	Tax Revenue...	29,151,000	35,278,000
1,507,500	1,507,500	Non-Tax do. ...	1,997,000	1,997,000
12,944,500	11,134,500	Total Revenue	31,148,000	37,275,000

Looking to the totals at foot of this table we see that in 1913-14 the "collected" revenue had *to be reduced* by £1,810,000 in order to get the true revenue really paid by Ireland; but in 1918-19 the "collected" revenue had *to be increased* by £6,127,000 in order to get the true revenue. That is a striking transformation. Everybody knows that the Customs and Excise duties, no matter how collected, are ultimately included in the retail prices paid by the consumer of the articles. Now when tea, sugar, tobacco, coffee, wine, etc., are consumed in Ireland the duties on

them have been "collected" in England before importation here: —these articles contribute a *plus* adjustment to our true revenue. But when Irish whisky, malt, and porter are consumed in England, the English consumer is paying the tax which was "collected" in Ireland before exportation:—these articles contribute a *minus* adjustment to our true revenue. Before the war the *plus* articles furnished very little revenue, the British taxation ideal being then a lightly-taxed breakfast-table. The *minus* articles were then much more productive of revenue, because spirits alone was heavily taxed. Therefore, the net final adjustment was then a *minus*, *i.e.*, the "collected" revenue then had to be reduced to get the "true" revenue really paid by Ireland. That was the position every year since 1879 when the "free breakfast" policy came into favour. The recent war taxes, which lie heavily on sugar, tea, tobacco, etc.—by sacrificing that policy—have brought in much new revenue from Ireland. At the same time the sales of Irish whisky and porter across the Channel have been much interfered with by shipping difficulties during the war: they had dwindled to a very low point when the Armistice came and cleared the seas of submarines; the last few months of 1918-19 thereafter showed a sudden large revival of this trade.

Looking now to the direct taxes, as in the above table, I may draw attention to three features. Income tax (with which is included Super Tax) and Excess Profits Tax (with which is included Munitions Levy), when taken together, account for about 19 millions of revenue; and of this as much as 6 millions was collected "at the source" across the Channel: a fact which shows that Irish people must derive a considerable part of their personal incomes from their investments in Great Britain,—we are the creditor nation. Then the Estate Duties in Ireland show a steady, if slow, rise: a fact indicating that the average of estates passing at death must be a good deal larger here than it used to be. Lastly, the Non-Tax Revenue (three-fourths of it being the earnings of the Post Office) is small and very stationary in Ireland; it is still under 2 millions, though the postage rates are so much raised.

The war has, I think, done much to re-establish Irish credit. It should have abolished the very prevalent idea that Irish public finance was plunging into insolvency because the revenue was not keeping pace with the expenditure. We have seen that there exists, since 1817, no constitutional reason why the two should keep pace. But people who know nothing about that have sometimes had the notion that a country ought to be able to pay its

way. Now, for the past fifteen years or so, British finance has been shifting the main burden of taxation from consumable articles to direct taxes on wealth like Estate Duties, Income Tax and Super Tax. That policy may have suited Great Britain, where a wealthy class exists; but when that formula for taxation was applied to Ireland Irish revenue did not show much capacity of growth. It did not suit us. The needs of war finance compelled England to re-establish taxation on consumable articles; and under these new circumstances the possibilities of Irish revenue have taken a wholly different aspect. It has been demonstrated that Irish revenue to a large amount can be got if you go the right way for getting it. The London Exchequer may be trusted to now get all the Irish revenue that it wants:—

> Most can raise the flower now
> For all have got the seed!

But, while the Union contract stands, there is one thing the British Minister of Finance cannot do: he cannot put a tax on Ireland unless he puts at least an equal tax on the same article in England; he must tax his own breakfast-table at least as much as he taxes ours.

VI.—*Taxation in Great Britain and Ireland.*

Nevertheless, the enormous revenue now being extracted from Great Britain and Ireland is a terrible economic strain on both countries; and Ireland is less able to stand the bleeding since she gets back from the expenditure of these great war revenues only a very small return. I worked out the following comparative figures from the White Papers, to show the expansion of Tax-Revenues in both countries (I omit the Non-Tax Revenues altogether): Great Britain raised by taxes £153,408,000 in 1913-14, and £751,525,000 in 1918-19; which is an increase of 489·8 per cent. Meanwhile Ireland raised by taxes £9,627,000, and £35,278,000; which is an increase of 366·4 per cent. In this statement the Excess Profits Taxes are included; and in 1918-19 they brought in (apparently) £273,937,000 in Great Britain, £10,010,000 in Ireland. Now I propose to omit this Excess Profits revenue, for several reasons: (1) It mainly arose out of work that was being paid for out of the war expenditure itself, and Ireland got very little of that work to do. (2) It did not exist in 1913-14, and will not continue in the future; so it will not affect our capacity to carry our burdens in the future—the point I am here concerned with. (3) I am not satisfied about the method used in the White Paper to allocate the English,

Scottish, and Irish contribution to Excess Profits Revenue. We are told that the Excess Profits "collected" in Ireland was £7,484,000; yet the White Paper estimates that Ireland really "contributed" £10,040,000 under that head of revenue—the reason being that the Treasury has had all Excess Profits revenue "*adjusted* between England, Scotland and Ireland *on the same basis as Schedule D, Income Tax.*" I do not stop now to argue about the wisdom of this adjustment; for I am going to omit Excess Profits revenue altogether. So far, then, as regards all taxes other than Excess Profits Duty, the rise from 1913-14 to 1918-19 has been as follows: for Great Britain, from £153,408,000 to £477,588,000—a rise of 311·4 per cent.; for Ireland, from £9,627,000 to £25,238,000—a rise of 262·1 per cent. We might state this result approximately, viz.: In the last year of warfare the tax-revenue (other than Excess Profits Duty) had increased by three times for Great Britain, by two and a half times for Ireland.

Let us think where the money went. The White Paper for 1918-19 tells that the whole expenditure of the United Kingdom in that year was £2,579,301,500. It then picks out £185,536,500 of that vast sum and tells us how it was distributed, viz., the cost of English Services was £143,847,000; of Scottish Services was £19,527,500; of Irish Services was £22,161,500. That is local expenditure in each area respectively. But there still remains a sum amounting to £2,393,765,000 which is set down as spent on "General Services." The Exchequer Issues that authorised this vast expenditure might, perhaps, enable us to trace the money to its destination where it was finally paid away. How much of it was outlay spent in England, how much in Scotland, how much in Ireland, how much was spent abroad outside these three Kingdoms? These are questions which should not be asked while indiscriminate finance obtains between Great Britain and Ireland. But the Treasury in its White Papers has gone behind that principle of indiscriminate finance in order to supply an approximate statement of the facts as they exist at the moment. Therefore, I wish that we could get from the Treasury a Third White Paper telling us the true facts of the geographical distribution of this "General" expenditure. We could then be in a position to understand why it is that a tax revenue two and a half times larger from Ireland is economically far more exhausting to our country than the tax revenue three times larger from Great Britain has been to the sister island.

C. H. OLDHAM

Postscript.

The text of the Government's Irish Bill has just reached me; so I may be allowed to add a note on its financial proposals (Sections 19 to 34). The Bill is very skilfully drafted. But the disentanglement of British and Irish finances is not attempted, it is postponed; it is to be done eventually (if ever) by a Joint Exchequer Board of five experts (Section 30). The principle adopted, for the present, is to "reserve" all those branches of tax-revenue which require adjustment of the "collected" proceeds in order to determine the "true" proceeds really contributed by each country. That explains why Customs and Excise Duties, Income Taxes, and Excess Profits Duties are all "reserved"; whereas the Estate Duties, Stamps, and Land Values Duties are forthwith transferred, with provisions (Sections 26, 27) against double duties becoming payable in these cases. The aforesaid adjustments for the "reserved" taxes, hitherto done approximately by the annual Treasury White Paper, is under the Bill (Section 20, § 2) to be done by the Joint Exchequer Board; and, as the Bill (Section 19, § 4) will secure accurate returns of merchandise traffic in the Cross-Channel Trade, this adjustment can be effected with more precision than has been possible hitherto in the White Paper.

It is manifest that Ireland would lose heavily if this adjustment were not to be made, *i.e.*, if each country were simply to retain so much of those taxes, now "reserved," as it collected in its own territory. Thus, in 1918–19 (see my last table above) Ireland would lose a total sum of £9,101,000 upon Customs, Income Taxes, and Excess Profits Duty; and Great Britain would lose £3,013,000 on Excise: therefore, on balance, Ireland would suffer in 1918–19 a net loss of £6,088,000—which would probably be greater still in 1919–20. But it is only the initiated who would understand this point. And it is certain that this fiscal advantage (were it widely understood) would not appease the strong resentment that will be felt in Ireland at seeing all those important branches of taxation "reserved" to the London Parliament, where Ireland will be represented only by forty-two members. If all those taxes (it will be argued) were transferred, in place of being "reserved," the adjustments above mentioned could be still made with sufficient precision (though, with differing rates of taxation, it would be more complicated); so that the Irish will not see any just reason why they should lose that £6,088,000 of Irish revenue in any case. Neither administrative convenience nor fiscal advan-

tage will palliate what the Irish will see to be a "reservation" of political power in an essential part of self-government. The same remark will apply to the "reservation" of the Post Office, on the ground merely of administrative convenience.

What prospect does the Bill hold out as to the future transfer of these "reserved" taxes? Under no section does it foreshadow any transfer of Income Taxes or Excess Profits at any time. A perfectly good case can be made for this, assuming that a self-governed Ireland remains "within the Empire"; these taxes will always be "reserved" as the great instruments of taxation for war purposes. But the equity of the matter will become more apparent to Irishmen when these taxes in the Dominions and self-governed Colonies "within the Empire" also will be "reserved"—not to the Parliament of the British Isles, but to that future Imperial Parliament which will ultimately take charge of war finances for the whole British Empire. Meanwhile, the present Bill, while "reserving" Income Taxes and Excess Profits Duties for all time, has provided under Section 23 (the best bit of draftsmanship in the whole Bill!) for powers to be conferred on the Irish Parliaments "of levying surtax in addition to, or granting relief from, Income Tax and Super Tax." So that the perpetual "reservation" of these taxes can, I think, be justified when the Bill has been properly understood.

There remain Customs and Excise Duties. The Bill (Section 34) postpones the consideration of their transfer until after "Irish Union" has been consummated by identical constituent Acts passed by the two Irish Parliaments. If the question is then raised by "an Address for the purpose," the Joint Exchequer Board must forthwith consider the problems of their transfer and must "report thereon and on the methods by which in case of such transfer the payment of the Irish contribution to Imperial liabilities and expenditure can be secured." After a copy of their report has been laid before the two Parliaments of the United Kingdom and of Ireland, the question of further legislation will remain open. There is no promise that such legislation to effect the transfer will be pushed through and passed; and it is obviously impossible that any such promise could be given—simply because no future Parliaments can be bound by anything that the existing Parliament may do, or may wish to have then done, in any such matter.

As regards Ireland's contribution towards Imperial liabilities and expenditure, the items towards which she shall contribute are defined in the Third Schedule of the Bill. For the first two

years the amount of the Irish contribution is named at £18,000,000—which is the estimated sum that Ireland will be contributing in any case, whether this Bill passes into law or not. But the Exchequer of the United Kingdom will now be undertaking to provide a sum of between £4,000,000 and £5,000,000 (in lieu of the Land Purchase Annuities and instalments towards repayment of certain existing Public Loans) which will in future be going to the Irish Exchequers wholly. Thus the United Kingdom, in effect, will stand to receive a net annual contribution from Ireland of about £13,000,000 or £14,000,000—for the first two years. By that time the Joint Exchequer Board must have determined what proportion the "taxable capacity" of Ireland justly bears to that of the United Kingdom as a whole. The Irish contribution shall then be in that proportion, or fraction, of the amount certified (also by the Joint Exchequer Board) to have been the total of the Imperial liabilities and expenditure "for the preceding financial year." This "taxable capacity" proportion is to be "revised at the end of every fifth financial year thereafter." Of course, this phrase "taxable capacity" covers a great many highly contentious and complicated considerations, which in this note it is impossible to indicate. It is really a matter for experts to handle; the experts are directed "to be just"; and it is pretty certain that they will be obliged to report fully on the process by which they will have arrived at their determination of the matter. Provision is made by which the Joint Exchequer Board shall also settle how the whole contribution from Ireland is to be apportioned as between the two Irish Exchequers.

In this note I make no reference to the political aspects of this Bill. The disentanglement of the public finances of Great Britain and Ireland is a scientific problem which must be tackled under any such measure. Whether the present Bill passes into law or not, it has made an interesting contribution to this problem on the lines originally sketched by Lord Welby, Lord Farrer and Mr. Bertram Currie in their well-known Report for the Financial Relations Commission of 1896. In words of Byron's *Manfred*, these distinguished men are, in this matter:—

> The dead, but sceptred sovereigns, who still rule
> Our spirits from their urns.

March. C. H. OLDHAM

REVIEWS

The Economic Consequences of the Peace. By JOHN MAYNARD KEYNES, C.B., Fellow of King's College, Cambridge. (London: Macmillan and Co. 1919. Pp. 279.)

PRIVILEGED and yet perilous the state of one called upon to commit the double sacrilege of reviewing the work of his master and his editor—to bear the knife, like Macbeth, in defiance of the laws alike of hospitality and allegiance. But the knife is not very sharp.

Mr. Keynes' book is like a banquet of which the more austere and filling courses are both heralded and crowned by a number of more succulent and alluring dishes. His detailed dissection of the economic clauses of the Treaty of Versailles occupies the central tract of the work; but the reader is, as it were, lured into the midst of it, and again rewarded for the patient attention which it demands, by a series of vivid and arresting pictures of men, of institutions and of tendencies. Indeed, the first impression left on the mind is not merely that Mr. Keynes has written a very powerful and important book, but that he has written two, or possibly three—a mordant political pamphlet, a masterly technical discussion of the economic provisions of the Treaty, and interwoven with both an impressive and largely original philosophical *critique* of the economic relations of nations and classes. And the reader's first impulse is to wonder whether the whole effect would not have been even more compelling if these separate elements could have been disentangled and segregated within separate covers.

Further reflection tends to weaken this impulse, as I hope to show; but perhaps it will be in accordance with the traditions of this JOURNAL to yield to it provisionally, and to confine attention for as long as possible to the more purely economic portions of the work. Let it not be supposed from the simile employed above that their solidity implies obscurity or dullness. Mr. Keynes has an eye for words and a cleanness of phrasing which at once purge his eloquence of rhetoric and clothe his analysis

with life; though now and again, as on pp. 3, 12 and 24, his compressed and explosive thought finds relief in a sentence whose form can perhaps be justified by a comparison with Thucydides, but not otherwise. Indeed, in more ways than one the work of that father of all realists is recalled to memory; there is about the apologia of Clemenceau or the picture of post-war Europe something of the pitiless drive and stark objectivity of the speech of Cleon against the Mitylenæans, or the famous analysis of the reactions of war and politics in the city-states of Greece.

But to return within our self-imposed limits. Mr. Keynes' reasoning about the economics of the Peace Treaty can be summed up, it seems to me, in three propositions, which it is important to keep distinct, because in less rigorous hands than his they are sometimes entangled. They are (1) that the sums which it is proposed to exact from Germany by way of indemnity are excessive and impossible to obtain; (2) that the impossibility of obtaining them is partly at least due to the cumulative effect of the other clauses of the Treaty, which is to that extent self-stultifying; (3) that these other clauses, taken in the mass, are in themselves unwise and suicidal.

The first proposition involves two problems—the problem of what can legitimately be demanded from Germany, and the problem of what can reasonably be expected to materialise. The first turns largely on the legitimacy of the inclusion, in the Allies' demands for "civilian damage," of a claim for pensions and separation allowances which, according to Mr. Keynes' estimate, raises by £5,000,000,000 a figure which would otherwise total at most £3,000,000,000. This is a legal and ethical question, to which Mr. Keynes necessarily devotes considerable attention; but as such its full discussion falls without the scope of this review. The present reviewer, however, can see no answer to Mr. Keynes' contention that the wording of the stipulations made by the Allied Governments when consenting to an armistice afforded no good grounds for this discrimination of pensions and separation allowances from the other general costs of the war.

There is, however, also involved the problem of the valuation of the damage due to invasion, submarine activity, bombardment, etc. Mr. Keynes guesses this at outside figures of £500,000,000 for Belgium, £800,000,000 for France, £570,000,000 for Great Britain, £250,000,000 for the other Allies. To one without expert knowledge the weight of reason and authority appears to lie emphatically on the side of such figures as these as contrasted with such apparently fantastic estimates as those of the French

politicians whom Mr. Keynes quotes.[1] It might, however, have been helpful if he could have indicated more precisely how far his condemnation of such estimates rests upon disagreement as to the valuation of *material* damage, and how far upon a divergence of opinion (hinted at in a couple of footnotes) about the admissibility of claims for immaterial and personal damage, other than loss of life or physical injury. Reasonable public opinion does, I think, distinguish between the feeling which any of us may have that we should have done better but for the war, and the definite damage, over and above destruction of material goods, incurred by a population driven away from home and business, or gravely disturbed in the enjoyment thereof, by invasion; and would extend to an estimate, swollen by inclusion of the latter, a tolerance which must be denied to a sheer boosting up of material costs.

As to Germany's capacity to pay, Mr. Keynes concludes that the proceeds of immediately transferable wealth—gold and silver, ships, and foreign securities[2]—cannot amount by May, 1921, to more than £250,000,000 to £350,000,000, nor property in ceded territory or surrendered under the armistice to more than £80,000,000. Against these sums have to be set the costs of the armies of occupation and of necessary supplies of food and materials, leaving a net maximum balance available for reparation by May, 1921, of £100,000,000 to £200,000,000, of which £100,000,000 is earmarked for Belgium. As regards the payment of an annual tribute, Mr. Keynes points out that in the five years ending 1913 Germany's adverse balance of trade averaged £74,000,000; that her means of meeting this balance are taken from her by the Treaty; that her most prominent export indus-

[1] If M. Tardieu's figure of 550,000 ruined houses is correct for France (p. 118 n.) Mr. Keynes' allowance of £250 m., or less than £500 per house, would seem at first sight rather low; but in considering this and other instances of his practice of adding only 100 per cent. to pre-war prices, it must be remembered that his "pounds" are assumed to be *gold* pounds, and that an increase in his figures to allow for the specific depreciation of sterling would not affect the number of marks gold to be demanded from Germany. On the other hand, it might, I think, have been fairer if Mr. Keynes had written *down* somewhat in pounds English M. Klotz' estimates, made on Sept. 5, 1919, when the franc exchange was already at about 34.

[2] Perhaps Mr. Keynes will not carry conviction by laying such stress on the *present* unsaleability of German investments in Eastern Europe. It is true that he afterwards writes up generously Germany's possible favourable trade balance, to an extent which, perhaps, amply covers any possible increase, in the annual sum becoming available for reparation, which would result from holding these securities: but this is not conclusive in favour of his final proposals, which involve the complete abandonment of any lien on the securities, as well as a surrender of half the trade balance as previously estimated.

tries are either struck at by the coal and other provisions of the Treaty, or are in direct competition with Allied industries, or both; and that any very great reduction of imports is not compatible with the maintenance of even pre-war productivity. He therefore gives £100,000,000 as an outside estimate of the favourable annual balance of trade which may become available for payment of reparation. This, if continued for thirty years, he capitalises at £1,700,000,000, giving an outside present valuation of Germany's capacity to pay as £2,000,000,000.

Mr. Keynes' own proposal is that the indemnity should be compounded for at £2,000,000,000, against which £500,000,000 credit should be allowed for ships and other property already ceded; and that the remaining £1,500,000,000 should be freed *from the burden (of which he has already shown the "devastating significance") of bearing interest pending its payment in thirty* annual instalments of £50,000,000, these instalments being devoted entirely to material restoration in France, Belgium and Serbia. *These proposals go even further than all those who have* acquiesced in his critical analysis may be prepared for; for in making them he relaxes somewhat his previous habit of straining everywhere his own figures against himself. But in any case, on the face of it, the logic of clearly and scrupulously marshalled figures establishes his first proposition, and with it his second. For his figures are based on the assumption that the rest of the economic clauses (a lucid exposition of which is provided) are put into operation, and they demonstrate that the "Carthaginian peace," whatever its merits on other grounds, is not likely to conduce to reparation-paying capacity.

And this brings me to the third proposition which I have attributed to Mr. Keynes, and which is perhaps of the most abiding interest, at any rate from the speculative point of view. The incompatibility of the policies of crushing Germany's economic life and of tapping her for indemnities is frequently put forward, by those whose minds have a tilt in that direction, as an argument for doing neither. But clearly such an argument is invalid; the policy of the Carthaginian peace is not necessarily wrong-headed because it may prove disappointing to the givers of election pledges or even to the holders of just claims. Mr. Keynes in an illuminating passage hints at the comparative indifference of M. Clemenceau to matters of reparation; and by nothing which has been said hitherto is the Clemenceau attitude, which Mr. Keynes states with great detachment, proved in itself illogical and absurd. To understand his own opinion that it "is

not *practically* right or possible," it is necessary to look at the general basis of his economic philosophy as set forth in his Chapter II. ("Europe Before the War") and in scattered passages elsewhere throughout the work.

Now the startling thing about this analysis of the economic structure of Europe is that it is in some respects very different from, and indeed diametrically opposed to, that of pre-war optimistic, free-trade, pacific philosophy, and resembles much more nearly that upon which, consciously or unconsciously, the edifices of protectionism, militarism and imperialism are reared (question-begging words must be used for brevity's sake). To begin with, political frontiers are not, in Mr. Keynes' view, economically unimportant, but charged with significance, especially if they be multiplied. The transfer of a province from one sovereignty to another is not an economic irrelevance; Governments *do* seek to impose barriers and prohibitions and confiscations of private property, and they *can* enforce them. Secondly, the international division of labour between Europe and the rest of the world is not, as by our fathers, hailed as an unquestionable dispensation of Providence, but is seen to be fraught with peril and instability. The "devil" of Malthus is unchained, and reminds us that the mouths are many and the loaves and the empty spaces few. Generalities about the interdependence of nations are not allowed to veil the prospect of France and Italy and Northern Europe jostling against one another and against Germany in a rational solicitude to obtain the lion's share of a coal supply which will not suffice for all. The difficulty of obtaining an indemnity from Germany in non-competitive goods becomes not a mere *argumentum ad hominem* to cajole and fog the suspicious British manufacturer, but a signal that the dominant interests of Britain and Germany are competitive rather than co-operative. The two countries are pictured as competing for limited iron and steel markets, for inexpansive supplies of cotton and wool, for the exhaustible sheaves of America and Russia—a very different picture from the familiar pre-war one of two complementary countries, which was a picture based on the *extent* of the trade between them, and giving insufficient attention to its *nature*.

How, then, does Mr. Keynes, starting from premises which would seem to point to the conclusions of a Chamberlain or even a Cato, arrive at such opposite results? The answer would seem to lie in two words—organisation and psychology. As regards organisation, his doctrine seems to be this: "If being a European

is such a chancy business at best, let us not make it worse by flying at each other's throats. If coal is short, let us be reasonable and distribute it properly. If productivity is low as compared with needs, let us not lower it still further by tariffs and trade wars, and the destruction, from nationalist motives, of such organisation as exists." He objects to the economic provisions of the Treaty because they strike at the existing methods of organisation of an impoverished Europe, which has no strength and no present breathing-space to improvise new ones.

As regards the "new States" of Eastern Europe, this argument appears to me to have convincing force. It is difficult to believe that any of them has a prospect of making, within any reasonable space of time, gains comparable to what it would lose by the adoption of a jealous and exclusionist economic policy. That the argument should appeal with such irresistible force to more firmly established countries, such as France or Italy, is not perhaps to be expected. It is surely not axiomatic that a competent people should be content to accept as final the existing localisation of industry, seeing how largely in the past that localisation has depended upon political arrangements and more or less accidental tricks of skill. Questions of morality apart, the French seem to have made something of a technical error in banking upon the Saar coal-mines as a tap-root for a great national steel industry; but to have indulged in dreams of such an industry is not in itself (always from a strictly non-moral point of view) foolish or culpable. If these dreams are to be surrendered, and economic policy subordinated to the requirements of an existing localisation and transport system, it can only be under the pressure of urgent present need. To argue thus is not to dispute Mr. Keynes' conclusion that in the existing state of Europe that urgent present need should be the deciding factor.

England, however, as Mr. Keynes points out, still stands to some extent outside the European system. With the one important exception of the granary of Russia, the disorganisation of Europe strikes less direct and fatal blows at her than at Austria or Poland or even at France; indeed, in some respects, from a purely selfish point of view, it is even convenient. What, then, sentiment and morality apart, is the supreme interest of England in the restoration of Europe? Can we find it in Mr. Keynes' second *leit-motiv*—in his view of the workings of the human mind, of the limit which exists to the extent to which men will endure forced labour, hunger and privation without upsetting that whole capitalist structure whose essentially unstable and

inequitable nature he exposes with such deft and daring strokes in his initial sketch of pre-war Europe? It seems that even from this source he does not anticipate any grave peril to England; he does not "perceive in England the slightest possibility of catastrophe or any serious likelihood of a general upheaval of society." But with respect to the European Allies this appears to him the final and decisive consideration. I set out some of the relevant passages which seem to indicate that the most important ultimate issues on which Mr. Keynes joins battle with his opponents are these issues of psychology, and not of figures; the italics are mine. "You cannot restore Central Europe to 1870 without setting up such strains in the European structure and *letting loose such human and spiritual forces* as, pushing beyond frontiers and races, will overwhelm not only you and your 'guarantees,' but your institutions, and the existing order of your society" (p. 33). "If the distribution of the European coal supplies is to be a scramble in which France is satisfied first, Italy next, and every one else takes their chance, the industrial future of Europe is black and the *prospects of revolution very good*" (p. 88). "If we aim deliberately at the impoverishment of Central Europe, vengeance, I dare predict, will not limp. Nothing can then delay for very long that final civil war between the forces of Reaction and the despairing convulsions of Revolution, before which the horrors of the late German war will fade into nothing, and which will destroy, whoever is victor, the civilisation and the progress of our generation. *Even though the result disappoint us, must we not base our actions on better expectations, and believe that the prosperity and happiness of one country promotes that of others*, that the solidarity of man is not a fiction, and that nations can still afford to treat other nations as fellow-creatures" (p. 251).

When the ground is thus shifted on to what people feel and think and will, two consequences follow. First, it becomes of economic interest to know how Mr. Keynes' own mind works, and how he thinks the minds of the Four worked, as well as how he thinks the minds of the common people of Europe will work. And this it is which modifies the impulse to wish that political pamphlet away into a separate cover. Mr. Keynes has seen the picture as a whole, and he can hardly be blamed for presenting it as a whole; indeed, unless he had done so, we could hardly have been expected to form a rational judgment upon it.

But, secondly, the business of forming a rational judgment becomes much more elusive and precarious. These propositions

are not such as can be demonstrated by documents and figures. Here is one more quotation, again with my italics. "One could not despise Clemenceau or dislike him, but only take a different view as to the nature of civilised man, *or indulge, at least, a different hope.*" Those who have accused Mr. Keynes of writing with a bias are perhaps not wholly without excuse. To dismiss it as a pro-German bias is shallow and foolish, in face of Mr. Keynes' expressed views on such subjects as the origin of the war (pp. 1, 115) and the counter-proposals of the German delegation. Nor is it a bias born of querulousness or malice; Mr. Keynes' concrete proposals, to which for all their intense interest I have barely made allusion, would alone serve to redeem the book from any charge of mere destructiveness or petulance. But a bias perhaps there is; only it is a bias in favour of hope against despair—of taking, where the future is at best uncertain, the risks of generosity rather than the risks of meanness. Perhaps—perhaps Mr. Keynes himself is a bit of an old theologian, after all; and not a bad thing to be, either.

D. H. ROBERTSON

The Peace Treaty and the Economic Chaos of Europe. By NORMAN ANGELL. (London: The Swarthmore Press. 1919. Pp. iv+143. Price 2*s.* 6*d.* net.)

IN his opening chapter the author writes: "The fact of great economic disorganisation practically everywhere in the Western World, of dire distress in very many large areas, and famine of the very worst description in some, is taken as proven" (p. 1). But a good deal of space is, nevertheless, occupied with facts adduced in proof of these very points. The book contains an alarming description of the economic chaos into which Europe has been plunged, and the picture it presents is truly an appalling one, while unfortunately its essential accuracy cannot be doubted. Mr. Angell also states very clearly what the Treaty means—not merely to Germany, but to Europe, and, in fact, to the whole world. He rightly insists over and over again on the economic interdependence of the nations, and shows how the industrial ruin of Germany must react on the welfare of almost all other peoples. In a somewhat narrower connection, namely, the impossibility of obtaining an indemnity from a nation whose productive power is to be restricted in every direction, he shows the absurdity of attempts "to milk the cow and cut its throat at the same time."

Mr. Angell, while he puts his case with great energy, is

always reasonable, and is nowhere carried away by the passion which a humane man might not unnaturally exhibit in writing of the terrible suffering which is being endured in many parts of Europe at the present time. His case is closely reasoned, and the position of his opponents fairly stated, for he recognises that there are those who think that Germany has only got what she deserved, and who do not believe in the consequences which they are told will follow from the enforcement of what they consider to be strict justice. This point the author puts as follows: "Are not the conditions described above a just punishment for a wicked people? Having made their bed, must they not lie upon it? Is the condition of people on the other side of Europe any affair of ours? If there is any shortage in the world, is it not our duty to see that our own people come first?" (p. 10).

The author, however, of course comes down on the side of a drastic revision of the Treaty, and an energetic policy on the part of the more prosperous nations of Europe and of the United States for the re-establishment of industry in the areas that are suffering from the war and its consequences. He has some valuable suggestions with regard to the revision of the Treaty and as to the League of Nations, all of which deserve careful attention. With regard to the League of Nations, the author accepts the view of the League of Free Nations Association, namely, that "if the League of Nations is not to develop into an immense bureaucratic union of Governments instead of a democratic union of peoples, the elements of (*a*) complete publicity and (*b*) effective popular representation must be insisted upon" (p. 114).

The book may perhaps suffer a little by its appearance almost simultaneously with Mr. Keynes' *Economic Consequences of the Peace*, as the two cover much common ground. But Mr. Angell's book is in some respects simpler, and it deals with less technical matters than does Mr. Keynes'. It should, therefore, not fail to find readers, and we hope that amongst them there may be at any rate some of the unconverted.

H. SANDERSON FURNISS

Inflation. By. J. SHIELD NICHOLSON. (London: P. S. King and Son. Pp. 143. 1919. 3*s*. 6*d*. net.)

Money and Prices. By J. LAURENCE LAUGHLIN. (London: P. S. King and Son. Pp. xii+314. 10*s*. 6*d*. net.)

THE substance of *Inflation* was given in the summer of 1919 in lectures to the staff of Barclay's Bank. Professor Nicholson was "asked to make the subject as simple as possible and to go back to the foundations." Most economists would feel somewhat alarmed at having to address bank clerks on currency. The ordinary bank clerk, like men of other trades, finds the substance which he handles rather uninteresting, and fails to understand the excitement of the currency expert. One economist tells how, when he remarked to the cashier, "Three million more Bradburys last week!" he received from the other side of the counter a pitying smile, and "Ah! I suppose you watch these things." Another, who casually condemned the issue as a cause of rising prices, was met with "What! More money raises prices!!" But Professor Nicholson's bank clerks would be to some extent a picked audience, and he seems to have steered with success between the Scylla of assuming too much knowledge and the Charybdis of giving offence by assuming too much ignorance.

The first chapter describes the pre-war gold standard and its abandonment. The principle that the convertibility of a paper medium of exchange into gold is desirable simply because it is the best practical method so far discovered of limiting the issue of such paper is laid down and vigorously enforced. In the next chapter we get to the inflation resulting from the abandonment of the gold standard. The explanation of inflation is not quite satisfactory. First we are told that it "is by common consent the name of a monetary disease," which is perfectly true. Inflation in ordinary language, which is the most important language, has a "bad" sense: it is the people who think there is something "wrong" who say there is inflation, while those who are satisfied and do not want things altered deny the existence of inflation. But in the next paragraph Professor Nicholson says the "best solution is to say that inflation means an abnormal increase of money." Now what is "abnormal" is not necessarily bad; we can have abnormal prosperity, abnormal cleverness, and perhaps even abnormal goodness, without being any the worse for it. We may surely have an abnormal increase of money in some circumstances without being the worse for it. The author admits this

by going on to inquire (1) whether there has actually been an abnormal increase, and (2) whether the abnormal increase has been necessary and beneficial. Now no one contends that inflation is beneficial; if anyone thinks what has happened to be beneficial, he says there has been no inflation. It would seem better to accept the common implication of something "bad" in inflation, and to say that it means not abnormal but "improper or excessive" increase, an increase which ought not to have been allowed to take place, or which ought not to have been allowed to be so great, as the case may be. Little difficulty arises from this nomenclature where it is increases of paper money which are concerned, because they are so commonly regarded as subject to the will of the issuer. Where abnormal increases of freely coined metallic money are caused by discovery of new sources of supply, whether a person says there is inflation or not depends on whether he thinks legislators have been guilty of dereliction of duty in not shutting down gold mines, taxing gold output, charging a seignorage on coinage, or adopting some other of the numerous possible expedients for stopping or checking an increase. As persons who take this view are not numerous, it is unusual to find the term inflation applied to increases of gold money and paper kept on a par with gold when the increase is due to discovery of new mines or new methods of extraction. The war has brought into prominence the intermediate case of an increase of gold money in one part of the world caused by other countries refusing to take the normal amount of new gold, and even sending out some of what they already have. Professor Nicholson hesitates to apply the term inflation to this case; there is, he says, "abnormal increase in the gold money—although we do not usually speak of an inflation of the gold in circulation" (p. 49). There is nothing in his own definition to prevent him calling it inflation, but he does not do so because at bottom he accepts the ordinary view that inflation is something blameworthy, and he is not prepared to blame the governments which have merely allowed their countries to be flooded by gold refused or displaced by the action of other governments.

With the misconduct of these other Governments in not only keeping out and throwing out gold and thus raising prices all over the world, but also issuing so much paper money that it fell in value below this depreciated gold, he deals very faithfully. It discouraged industry and thrift, it caused industrial unrest all over the world, and it saddled the countries with far greater debts than were necessary.

And the remedy? Firstly, a cessation of Government borrowing, since so long as a Government borrows it will go on watering the currency. This, no doubt, is true so long as the money borrowed is more than what can really be lent without watering the currency, as it was during the war and perhaps still is. Secondly, a rigid limitation on the increase of currency notes. Thirdly, a reduction of the amount in circulation "until the notes bear a reasonable proportion to the gold held as cover." We should rather expect this to read, "until the £1 currency note is worth $123\frac{1}{4}$ grains of standard gold and about 4·87 in gold dollars"; but it must be remembered that the book went to press before the great rise in the price of gold and fall of the American exchange had manifested itself. Professor Nicholson is doubtless assuming the restoration of parity, and is asking that even after that restoration the notes should not exceed the cover by an amount which might make it difficult to maintain convertibility in the event of some untoward incident.

The book concludes with a striking quotation from the *Pilgrim's Progress*, in which Bunyan describes the difficulties of Christian and Hopeful when they left the King's highway to go by the bypath. I suspect that the part of it which most appealed to Professor Nicholson was: "They, looking before them, espied a man walking as they did (and his name was Vain-Confidence). . . . But, behold the night came on, and it grew very dark . . . and Vain-Confidence fell into a pit. . . . So they called to know the matter, but there was none to answer."

From Professor Nicholson's practical sound sense to the wild imaginings of Emeritus-Professor Laughlin there is a precipitous descent. Professor Nicholson prefers the gold standard not because he imagines it perfect, but because he thinks it more stable than anything under the immediate control of politicians in general, and especially than the paper pounds, francs, marks and roubles of the present time. Professor Laughlin, on the other hand, makes a fetish of gold. It is a tenet of his religion that gold cannot be wrong, and other standards cannot be right. To those who complain that the great gold production in the middle of the nineteenth century, and again at the beginning of the twentieth, caused inconvenient rises in prices, he replies that gold was not to blame—it was something else than the greater production of gold which caused them. To those who complain that in the intermediate period the smaller production of gold caused an inconvenient fall of prices, he replies again that gold was blameless—again "it was the other boy that did it." Even in the

period since 1914, when a great portion of the world refused to buy additional gold and sold some of what it had before, so that the supply to the rest of the world increased enormously, and the value of gold in commodities and services fell to one-half of what it had been, gold remains, to Professor Laughlin, not merely (as it is) better than the still more depreciated paper, but absolutely perfect as a standard of value.

It would be a waste of time to follow the author far in his search for "other reasons." Suffice it to say that one of the principal of his other reasons for the recent rise of prices reckoned in gold is the rise of wages: "Is it possible," he asks, "that anyone denies that an increase of wages, other things being equal, raises the selling prices of goods?" (p. 140). Is it possible, we may ask, that any economist to-day sees some fundamental distinction between paying a man to make a thing and paying him for the thing when he has made it? Is it not obvious that the increase of money-wages (which are the wages meant) is merely part and parcel of the increase of prices which has to be accounted for?

The length to which Professor Laughlin's fetishism will lead him to go may be illustrated by the fact that, though on p. 138 he tells us that in the United States the "increased supply of gold through imports has been phenomenal. . . . The gold reserves of the federal reserve banks have doubled within the last year. In addition, there has been a fourfold increase within a year in the federal reserve notes in circulation," in the Preface he says "there was no such expansion of money or credit as would account for the rise of war prices in this country." And though Germany (p. 138) is "reaping the whirlwind from her own sowing" because she adopted inconvertible paper, England is quite sound because (p. 143) she has not "left the gold standard." Presumably Professor Laughlin was imposed on by the convertibility of the Bradbury into a sovereign which could not be melted down nor exported. The fall of the £1 to \$3.75 soon after the "unpegging" of the exchange must have come after he had written the book, the date of which is very obscure.

The only argument of any importance which he uses in favour of his thesis is that the stock of gold is large and therefore the value of gold is not much affected by fluctuations in the annual supply. Similarly, a man may argue that the value of houses is not much affected by fluctuations in the annual supply—though this is not the best time to do so. If there are no new houses, people must squeeze themselves into old ones, and the bigger the

stock in proportion to the annual supply needed to maintain it undiminished in proportion to the people, the less differences of pressure and consequently of price will given fluctuations in that supply cause. But to allege, as Professor Laughlin's fetishism requires him to do, that the increase of gold money and paper kept by convertibility on a par with gold is never, and perhaps never can be, great enough to raise prices, is, in view of recent experience in his own country, simply grotesque.

EDWIN CANNAN

The Paper Pound of 1797–1821. By PROFESSOR EDWIN CANNAN. (London: P. S. King. 1919. Pp. xlix + 71.)

PROFESSOR CANNAN has supplied us with a reprint of the Bullion Report of 1810. The Report has been rightly regarded as marking an epoch in currency history. Even if it deserved Horner's modest description of it as "stating nothing but very old doctrine" (quoted on p. xxii of Professor Cannan's Introduction), it at any rate expressed this doctrine in a form which caught the attention of practical men, and exercised a real influence on the course of events.

But Horner was probably quite well aware that the Report did something more than state "very old doctrine." That a depreciation or over-issue of the currency might affect the foreign exchanges had indeed long been recognised. Gresham mentions this in the very letter to Queen Elizabeth which has gained him (erroneously) the credit of discovering "Gresham's Law." But, for all that, what may be called the Balance of Trade Theory held the field as the recognised doctrine of the foreign exchanges. An unfavourable exchange was attributed to an excess of imports; a favourable, to an excess of exports. The Bullion Committee pointed out that a depreciation of an inconvertible currency alters the par of exchange itself, the new par being such amount of a foreign metallic currency as the depreciated unit will buy at the market price of bullion. What is more, they showed that "there cannot be, for any long period, either a highly favourable or unfavourable balance of trade; for the balance no sooner affects the price of bills than the price of bills, by its reaction on the state of trade, promotes an equalisation of commercial exports and imports." Consequently, that excess of exports, which they found to have characterised British trade in the five years preceding the Report, was to be interpreted, not as an influence conducing to a favourable state of the exchanges, but rather as a

symptom of an unfavourable balance of payments, due to excessive expenditure abroad, which was aggravating the currency difficulties of the country.

Here was an answer to the prevalent argument that an excess of imports threatened to denude the country of its gold, and made a gold standard impossible. An excess of imports was not an act of fate, an unalterable fact. The balance of trade no doubt affected the exchanges; but it was equally true that the exchanges affected the balance of trade. And it was at this point that the quantity theory came in. If the excess of imports could be cured by a restriction of cash payments, which left the exchanges free to range far beyond the specie points, it could equally be cured by a contraction of the currency, which would raise the bullion value of the monetary unit.

Remedies did not come within the Committee's reference, and the Report left the method of contracting the currency to the discretion of the bank. But this did not prevent the Committee from pointing out the importance of the rate of discount as an instrument of currency control, and the disadvantages of the legal limitation of the rate to 5 per cent. And they appreciated the fact that the essential function of a high rate is not, as is now so often assumed, merely to attract foreign lenders, but to act as a deterrent on trade borrowing. In this respect they understood the regulation of credit better than many who have had the advantage of seeing the results of the bank-rate control by which for three-quarters of a century the credit system of London, and therefore of the whole world, has been successfully regulated.

Indeed, the fallacies against which the Bullion Committee contended are widely prevalent at the present time. They are confidently voiced by bankers, politicians, and others, who from prestige and position have every right to be heard, and who yet hardly seem to be aware that the Balance of Trade theory is not the last word of scientific thought. The appearance of a reprint of the famous Report is therefore most opportune.

Professor Cannan provides an interesting Introduction, mainly historical. Perhaps a little more theoretical discussion of the Report would not have been out of place. Such theoretical discussion as there is is too much concerned with the Quantity Theory, and, for example, does not bring out the importance of the Committee's exposure of the Balance of Trade fallacy.

There are one or two points in Professor Cannan's interpretation of history which are open to challenge. He follows most economists in attributing the original suspension of gold payments

in 1797 to excessive borrowing for the war. The sums borrowed were large; but is this explanation reconcilable with the reduction of the note issue and of the unfunded debt in the years immediately preceding the suspension? And when he comes to the resumption of cash payments in 1821, he attributes the bank's success in resuming to the repayment of £10,000,000 of Exchequer Bills by the Government, in accordance with the recommendations of the Committees of 1819. But the premium on gold vanished after a last faint flicker in November, 1819, and the repayment of the Exchequer Bills did not *begin* till after that date. With gold at the Mint price, and the foreign exchanges at or above par, the gold standard was restored, and the repayment of the Exchequer Bills (a sound measure in itself) did no more than aid the bank in accumulating a large reserve of bullion and specie.

And is the accuracy of Professor Cannan's references to the history of his own day beyond reproach? On p. xiv he seems to imply that the prohibition of the melting of gold coin in this country took effect from the beginning of the war instead of only from December 5th, 1916.

But some of the foregoing criticisms are on questions rather of emphasis than of accuracy, which do not materially detract from the value of Professor Cannan's Introduction.

As to the reprint of the Report itself, a little more vigilance in the reading of the proofs would have been well spent. And if it was necessary to parade the correction of "scarcity" to "security" on p. 47, with all the trappings of square brackets, queries, italics, and a separate reference in the Introduction, could not the error of 12 oz. 3 dwts. for 12 oz. 13 dwts. on p. 31 have been corrected too? True, the former correction was made, and the latter was not, in the second edition of the Report. But it happens that both occur in passages quoted from the evidence, from which the correct readings can be obtained, and so all doubt removed.

R. G. HAWTREY

War-Time Financial Problems. By HARTLEY WITHERS. (London: John Murray. 1919. Pp. x+306. 6*s*. net.)

MR. WITHERS must by this time be rather wearied of compliments on the lucidity of his style and the light and easy way in which he handles the dull and unattractive topics that he has selected for treatment. Many people seem to have forgotten that Bagehot and George Rae were quite as successful in relieving the monotony of monetary and financial questions by supplying

the salt of humour and the brightness of fitting literary allusions without any sacrifice of scientific precision. After all, the true test of merit is in the substance, whatever be the grace of the form, and it is by this test that our author may claim to be estimated.

Regarded in this way it may at once be said that the present book contains a great deal of sound criticism as well as effective exposition of economic principles that are in danger of being ignored in the press of the abnormal conditions that a state of war generates. It is a useful task to bring out the essential nature of capital and to insist on the fact that it is the outcome of saving. Still more needed is the exposure of the currency fallacies that arise so naturally and are so readily accepted in commercial and business circles. The criticism of the theories of paper money as the source of national prosperity if issued in sufficient amount is complete and timely. It is, however, true that to set such pleas before economists is to preach to the converted.

We therefore are more attracted to Mr. Withers' treatment of the more fundamental and difficult problem of the method most suitable for financing the war. In his criticism of the policy actually followed there is a justifiable severity. The absence of any far-sighted conception of the way in which the financial conditions would be influenced by the progress of the war is regarded as the explanation of the many failures of the Government. "The problem which a statesman who had thought out the economics of war beforehand would have recognised as the keystone of his policy would have been that of diverting the activities of the country from providing itself with comforts and amusements to turning out goods required for war" (p. 41). The mode of solution is that of equitable taxation, and, as Mr. Withers affirms, "If such a policy had been carried out the cost of the war to the community would have been enormously cheapened" (p. 42). "The community would gradually have shed one after another the extravagances on which it spent so many hundreds of millions in the days before the war" (p. 43). Nor, in our author's opinion, was this course beyond the power of a really bold and far-sighted Finance Minister. Unfortunately, the opposite course of stupidly drifting along what was thought to be the line least likely to excite discontent was followed, with the necessary result of creating greater difficulties for the future. The pity is that such sound doctrine was not impressed on the public mind at an earlier stage.

Connected with, though also in contrast to, the finance of the war is the *post bellum* problem of dealing with the burden that flabby financial policy has placed on the country. In this case, too, Mr. Withers takes a pronounced attitude of hostility towards the proposal that has attracted most attention and gained most popularity. He will not give the slightest countenance to any scheme for a levy on capital for the purpose of redeeming or largely reducing the debt. He brings out very clearly the chief difficulties that such a levy would involve, and ultimately rather comforts his readers by the reflection that "with taxation on a really sound basis no further sacrifice would be involved by the debt charge, and no diminution of the nation's wealth; but only a transfer of consuming power from taxpayers to debt-holders in accordance with the sacrifice made by the latter during the war" (p. 256). This position is, at least apparently, very near that of the upholders of the theory that domestic public debt is a case of the right hand paying the left to which Professor Nicholson has done justice in his *War Finance*. It seems to us that in common with other critics of the capital levy plan, Mr. Withers makes play with the fallacy of objections and hardly gives sufficient weight to the political aspects of a heavy annual charge for debt incurred for war expenses. Nor is the danger of this situation diminished if, as we may hope, the process of restoring the monetary standard is carried out with reasonable speed. Interest payment accompanied by the gradual reduction of the principal of the debt in a currency of rising value would be a certain cause of discontent and even lead to the promulgation of extreme plans for getting rid of the public creditors' claims.

But *War-Time Financial Problems* is not confined to the direct policy of the State. Some of the most interesting parts are those dealing with questions of organisation and economic reform. The joint-stock system is one of the vital parts of modern commercial organisation. Amongst its other evil effects war has led to restrictions on, and proposals for closer regulation of, companies. In his telling style Mr. Withers exposes the danger of undue limitations on the normal activities of these bodies. In particular, the absurdities that restraint on the export of capital gives rise to are made plain. By recurring to the essential fact that capital consists in commodities, the ingenious idea that we can keep in capital while we stimulate the outflow of goods becomes a contradiction in its nature. No difficult reasoning or appeal to abstract theory is required to establish these commonsense views; but, unhappily, they need to be persuasively

expounded by those who are able to influence opinion, and Mr. Withers belongs to this class.

The article on "International Currency" deals with a more complicated issue, and naturally is confined to some of the obvious aspects of the proposal that it discusses. We may agree with the opinion that the present time has so many difficult problems to face that it would be unwise to alter the currencies of the world by hurried action. But there is, on the other hand, the grave consideration that the extraordinary disturbances in the various national currencies—disturbances that must be corrected in some way—afford a most favourable opportunity for international action. Owing to the great alterations in the standard of value, it is possible to introduce adjustments between different currency systems that could not be attempted with any hope of success in normal times. Without indulging in any fancy expedients or inflicting grave injustice on important classes, it would appear to be possible to remove a great deal of the existing confusion in the systems of currency. Mr. Withers quite justly holds that "it is very doubtful whether such an organisation as the League of Nations could, at least during the first half-century or so of its existence, be called upon to tackle so difficult a question as that of the creation of an international currency based on international credit." The League of Nations, or the humbler organisation of an international monetary conference, might, however, go far in realising the ideas of the Paris Conference of 1867 and give the world a convenient unit for the currencies of the world. We might also hope that internal currency reforms (such as the adoption of the decimal system in England) could be worked into such a scheme without any extra inconvenience. The need for restoring sound conditions in the monetary arrangements of nearly every country supplies ample ground for concerted action, which does not, or at least need not, mean indulgence in speculative devices for using credit as a foundation for the money of the future.

In the controversy between Sir E. Holden and Lord Cunliffe as to the merits of the Act of 1844 the position taken by Mr. Withers is somewhat undecided. His readers would have appreciated a fuller discussion.

Finally, we might ask for qualification of the judgment that the man who saves in order to provide "for those who come after him" is actuated by "a purely selfish motive" (p. 7). Even in "providing for his old age" the saver may desire to relieve others of the task of doing so! C. F. Bastable

Foreign Financial Control in China. By T. W. OVERLACH. (New York: The Macmillan Company. 1919. 8vo. Pp. 295.)

IN this book an attempt is made to narrow down the vast field of foreign finance and foreign policies in China to an examination of the control clauses embodied in foreign loan contracts and railway concessions in China.

The day may come when a settled government and a purified administration will raise the credit of the country to a level which will enable China, like the Western Powers, to provide the means for developing her vast natural resources by the issue of consolid ed stock. In the present stage of China's political and e nomic development it is not unreasonable that foreign capitalists before parting with their money should ask for adequate guarantees that it shall not be misspent. On no other conditions will Western capital be forthcoming.

Such guarantees are required as much in the interest of the borrower as of the lender. It is upon the Chinese ryot that the burden of the debt ultimately falls, and it is in his interest to secure that the borrowed money shall be guarded from waste or fraud, and that the railway, on the profits of which depends the redemption of the debt, should be economically constructed and efficiently managed.

So much will probably be conceded, and if the guarantees sought had been confined within the ambit of purely financial control, if political considerations had not supervened, there would have been no room for criticism. Unfortunately, politics could not be excluded.

In 1895, after her defeat by Japan, China lay at the mercy of the Western Powers. The temptation proved irresistible. Strategic bases were established by successive encroachments on the territory of China, and in the continued application of imperialistic policies to exclusively national ends the Powers entered upon a struggle, the Battle of the Concessions, for the control of China in which the combination of politics and finance played a sinister part.

The evil wrought its own cure. The dismemberment of China, to which the policy of encroachment was inevitably leading, was averted by the adoption by general agreement of what is known as spheres of interest. China was parcelled out by the Powers into geographical areas within which each Power claimed for itself the primary right of economic exploitation. This was

manifestly unfair, inasmuch as the only terms upon which China could obtain foreign financial assistance within the given area were those which the Power might choose to demand. China was deprived of the advantages of buying in the cheapest market.

Mr. Overlach's definition of spheres of interest and of the spheres of influence which followed them is, we think, incomplete. The contrast is not between an exclusive right to exploit on the one hand and a certain degree of control, short of a protectorate, on the other, but between the exercise by a single Power of a monopoly right of exploitation and a preferential right of exploitation on terms not less favourable than those offered by others. The latter was not an unreasonable stipulation. It safeguarded the right of China to obtain the money or commodities she required at fair market prices. It protected the lending country against its credit being used to support the industries of another foreign Power and ensured an effective demand for its own commodities, provided these could be produced as cheaply as elsewhere. Nor was this policy, as Mr. Overlach points out, necessarily opposed to the policy of the open door, provided the necessary control was kept within reasonable bounds.

The financial policies of Great Britain, Russia, France, Japan, Germany and the United States are separately discussed. The analysis of the various loan agreements is fairly clear, but the detailed information is confessedly incomplete. More than once the author confesses that he has not seen the agreement about which he is writing. The style throughout is cumbrous and involved, and no very clear or definite impression is left upon the reader's mind. Mr. Overlach has evidently read extensively on China and quotes freely, but it does not appear that he has had access to much information at first hand, and the result suggests compilation rather than composition.

Upon the whole the account of British relations with China is the most successful. "British control," he says truly, "is essentially financial and non-political." The foreign policy of Great Britain in China is founded upon "the old traditional *laisser-faire* and free trade principles which have made the Empire great," and he has no difficulty in showing that the policy of non-interference, and, it may be added, the tendency of British finance to assume a cosmopolitan character which has at times been criticised as suicidal to British prestige and British finance, "has by no means handicapped the tremendous growth of British railway interests in China."

We have not space here to deal with the chapters on France,

Russia and Japan, except to say that in his criticism of Russia Mr. Overlach appears to us unfair. He refuses to make any allowance for Russia's natural and long-cherished desire for an ice-free outlet to the Far East or her pride in the gigantic railway enterprise which reduced the journey from Paris to Peking to eleven days. The sorrowful catastrophe which has befallen our Russian ally should not make us unmindful of the benefits she has conferred upon the world and may yet confer again.

It is when he comes to deal with the United States that our author finds himself at home. "The United States," he asserts, "is the only great nation that has maintained throughout its relations with China a consistent attitude of unselfishness." It is not from any desire to question the general truth of this statement that we venture to take exception to one of its terms. Until late in the nineteenth century America's foreign interests may be described as negligible. She had no inducement to meddle in foreign affairs. But times have changed. Events have drawn the United States away from her traditional policy of isolation and cast upon her the responsibility for large and direct interference in the affairs of countries other than her own. The policy of the past and the policy of the present are thus brought into sharp conflict, but "unselfish" seems to us as inappropriate a description of the first as "selfish" would be of the second. It is true that the foreign policy of the Powers is dictated and foreign finance governed by considerations of national advantage and profit. There is no reason to believe that the policy and finance of the United States offer any exception to this rule, and we venture to think that it would be unfortunate if it did—for China as well as America. "I have never known much good done," says Adam Smith, "by those who affected to trade for the public good. It is an affectation, indeed, not very common among merchants." The true policy is the open door in China, and if the United States sticks to that all will be well.

The chapter on "International Control" is confused, and even the quotations are unsatisfactory. It is impossible for anyone who is not acquainted with the facts to follow a narrative in which British Government Blue Books, the *China Year Book*, the *Far Eastern Review*, and Mr. Willard Straight's *China's Loan Negotiations* are all cited as apparently of equal value. And anyone who does know what weight to attach to these various authorities probably knows more than this book can tell him.

Mr. Overlach's conclusion is that non-interference is no longer

a practical policy, nor is it a policy calculated to promote China's own interests. The alternative would appear to be the substitution of international co-operation for international competition, the financial necessities of China being supplied under conditions involving the minimum of foreign control by an international consortium of bankers acting under the joint supervision of the Great Powers.

For the sake of so sound a conclusion we may well overlook the occasional defects of a not very satisfactory book. It is furnished with an extensive bibliography and an exiguous index.

C. S. ADDIS

The Trade Relations between England and India (1600–1896). By C. J. Hamilton, M.A. (Calcutta: Thacker, Spink and Co.)

PROFESSOR HAMILTON has done a useful piece of work in this survey, which tells the story of the commercial penetration of one country by another. With the momentous political results the author is not directly concerned. He has confined his attention to the refutation of the distorted account of its economic effects presented in such works as Mr. R. C. Dutt's *Economic History of British India* and Mr. W. Digby's *Prosperous British India*. The latter is the more reckless of the two writers. He believes that "possibly since the world began no investment has ever reaped the profit reaped from the Indian plunder," that "the plunder of Plassey" made possible the commercial utilisation of "Hargreaves' ingenuity and Watt's genius," and that "the British Government . . . deliberately strangled Indian manufactured exports, and thereby gave English enterprise an opportunity to obtain a footing, which, once obtained, has led to the whole country being covered with the product of English looms." The result of our misdeeds has been that "there is now no capital left in the country, nor even enough for the common needs of decent folk." Mr. Dutt presents the same indictment in more moderate language. "India in the eighteenth century was a great manufacturing . . . country, and the products of the Indian looms supplied the markets of Asia and Europe." English statesmen discouraged the import of Indian cotton and silk cloth "in order to encourage the rising manufactures of England." Their "policy was to make India subservient to the industries of Great Britain, and to make the Indian people grow raw produce mainly in order to supply materials for the looms and manufactures of

Great Britain." The period during which this policy is believed to have been chiefly pursued consists of the closing decades of the eighteenth and the opening decades of the nineteenth century. It is further alleged that, when protection ceased to be useful to Lancashire and free trade was adopted, the latter was forced upon India in order to prevent the revival of its manufacturing industry.

"Economic penetration" has become a term of ill repute on account of the part it played in the Pan-German programme. But it is a natural, and should be a beneficial, incident in the relations between a country in a backward, and one in an advanced, stage of economic progress. Any country which makes use of foreign capital and brain power must pay for these services. They are ultimately paid for in goods, and it is only begging the question to label the payment as "tribute" or "drain."

It is important to remember that before 1765, when the East India Company became responsible for the revenue administration of Bengal, it was incapable of imposing a commercial policy on any part of India. In the seventeenth century the charge it had to meet at home was that its commerce involved a drain of bullion from England. In the first half of the eighteenth century the policy of the English Parliament was to use the tariff as an instrument for the protection of English woollen and silk manufactures, and a further reason for high import duties was found in the need to raise revenue to meet the cost of continental wars. The wearing of Indian silks and dyed calicoes was illegal from 1700 to 1824. But the Company could import plain muslins and calicoes for use in England, and all kinds of silk and cotton piece goods for re-export to the continent. In 1765 Indian piece goods intended for use in England were subject to an import duty of 45 per cent. *ad valorem.* English statesmen deserve condemnation for using customs duties in this period to exclude Irish competition, because Ireland was subject to the British Crown. But their application of current economic theories, good or bad, to commerce with India was perfectly natural and morally justifiable. The effect on the hand-loom manufactures of Bengal must have been very small. The Company had never imported much cloth. It found its chief profit in the spice trade, and the piece goods it bought in Bengal were mainly exchanged for spices in the Malay Archipelago.

The picture of a prosperous India before the advent of British rule is imaginary. Bernier, of whom Professor Hamilton might have made greater use, is a reliable witness. On his return to

Europe about 1668, after a twelve years' sojourn at the Moghal Court, he wrote to Colbert: "The country is ruined by the necessity of defraying the enormous charges required to maintain the splendour of a numerous court and to pay a large army. . . . No adequate idea can be conveyed of the sufferings of that people. The cane and the whip compel them to incessant labour for the benefit of others." If this was true when the Empire was still flourishing, one can imagine the state of the country in the half-century before Plassey when it was tottering to its fall and the Mahratta hordes were overrunning the land. Bernier warns Colbert that the production in India of fine cotton and silk cloth did not mean that the weaver was well off: "Nothing but sheer necessity or blows from a cudgel keep him employed; he . . . feels it is no trifling matter if he have the means of satisfying the cravings of hunger and of covering his body with the coarsest raiment. If money be gained it . . . only serves to increase the wealth of the merchant, who in his turn is not a little perplexed to guard against some act of outrage and extortion." It is fair to note that elsewhere Bernier writes in ecstatic terms of the natural wealth of Bengal and of its manufacturing industry. But the evidence given by Professor Hamilton (pp. 199–200) of the conditions under which weavers worked in Bengal shows that they were the same as those described by Bernier as existing in Hindustan. Much criticism has been levelled at the system of advances to weavers adopted by the Company, and it did in fact perpetuate glaring abuses. But the English only followed in the main native practice. Weavers in India, if put on work requiring the expenditure of the smallest amount of capital, had to depend on the receipt of advances from their employers. It is the same to-day, and the only alternative is co-operative credit.

No Englishman can be proud of the administration of Bengal for a quarter of a century after we became responsible for its destinies. The government of the Company was distracted and vitiated by the fundamental divergence between dividends and duty to its subjects. We can now see that the assumption that the revenues of Bengal could be used like the profits of trade was monstrous. But, bad as the theory was, its effect on Bengal and India, as Professor Hamilton proves, has been absurdly exaggerated. The surplus available for the purchase of goods for export from India was in fact small. The Government was in chronic money difficulties, and the Bengal surplus was largely spent on political objects elsewhere in India. The drain to Bombay after Plassey replaced a drain to Delhi in the days of native rule. The use

of a small part of the surplus to purchase goods for England cannot possibly have produced the industrial revolution there, even if we add the "plunder of Plassey." It is hard to justify the share of the indemnity exacted after that victory given to the Company's servants; and the failure to check promptly the abuses of their private trade and their receipt of presents according to the universal practice of the native officials, whom they gradually replaced, are not creditable. But Professor Hamilton has shown that the private remittances in bullion or in goods on behalf of the Company's servants have been grossly exaggerated. That these abuses ruined a flourishing Bengal is untrue.

Undoubtedly it suffered at this period from a scarcity of silver, and the fact is urged as a proof of the deadly effect of the "drain." The capacity of India to absorb silver is an old puzzle. Bernier pointed out that, while there was an enormous influx of gold and silver into Hindustan, the inhabitants displayed no signs of wealth. He concluded that the precious metals were buried "in consequence of the tyranny of governors and farmers" of the revenue, "a tyranny often so excessive as to deprive the peasant and artisan of the necessities of life and leave them to die of misery and exhaustion." Hoarding no doubt was rife in the troublous times before 1765, and till 1773 our control of the administration was in fact very small. The evil was aggravated by the stoppage of bullion remittances from England, France, and Holland. So far as the failure of English remittance was due to misuse of part of the revenues of Bengal for trade purposes, blame can properly be awarded. But the economic effects of that misuse have been much exaggerated.

To return to the main charge that England deliberately destroyed the flourishing cotton and silk manufactures of Bengal. The tariff was used in the second half of the eighteenth century to protect English manufacturers. But before the Napoleonic wars the duties were not crushing, and an excise duty on English piece goods was imposed in 1784. The Company appears to have received a considerable drawback on re-export. From 1771 to 1909–10 the value in millions of pounds of the sales of imported piece goods amounted to the following yearly averages: eight years ending 1778, 16·5; seven years ending 1785, 11·2; seven years ending 1892, 15·1; four years ending 1896–97, 23·1; six years ending 1902–3, 24·2; seven years ending 1909–10, 13·6. The fluctuations in the first three periods are not to be explained by tariff changes, which were not large. The period of war duties began in 1797, but imports only collapsed about 1806. The competition

of English machine-made piece goods seems to have begun twenty years earlier. Even in 1787 seventeen-twentieths of the imports were for re-export, and the Company continued the import after it had ceased to yield any profit. It is legitimate to argue that Great Britain should not have treated India in fiscal matters as a foreign country, but it is unfair to ascribe to policy what was in fact the inevitable result of competition between machinery and the hand-loom. It seems doubtful whether protective tariffs really hastened the victory of superior means of production and of workmen possessing the qualities that pay in machine-driven industry. Ignorance could be the only excuse for overlooking the fact that the demand for the fine cotton and silk cloths of Bengal largely depended on the existence of a great Empire with courts at Agra, Delhi, Lahore, and Kabul, and that that Empire was ruined long before Plassey was fought. The allegation that the encouragement of the reeling of raw silk in Bengal was not only intended to benefit English silk manufactures, but was deliberately designed to stamp out Indian silk weaving, is untrue. As regards their home market, the English silk weavers required no fresh protection, for the wearing of Indian silks in the United Kingdom had been prohibited sixty-five years before the *Diwani* of Bengal was ceded to the Company. It could always import silk goods for re-export, and after the prohibition of sale for English use was abrogated in 1824 the trade in silk piece goods for the English market became a growing one.

Professor Hamilton devotes his last chapter to the establishment of free trade, and in this connection discusses the excise duty on Indian cotton yarns imposed in 1896. It represents a kind of blunder which English statesmen as a rule only commit under pressure, for it sacrificed to theory every consideration of expediency. The import duty on cotton cloth was so low, and the extent of competition between Indian products and the finer piece goods of Lancashire so slight, that no countervailing excise duty was required. It may be doubted whether a duty of 3½ per cent. had much effect one way or other, but the critics of Government were presented with a grievance. Educated Indians are protectionists, and it is useless to point out to them that the duty was only the application of an economic theory in which they do not believe, and the continued application of which to India they hope to prevent.

J. M. Douie

The Housing of the Unskilled Wage-earner. By EDITH ELMER WOOD. (New York: The Macmillan Company. 1919. Pp. 321. Price $2.25.)

The Little Town. By HARLAN PAUL DOUGLASS. (New York: The Macmillan Company. 1919. Pp. 258. Price 6*s*. 6*d*. net.)

New Town. By W. R. HUGHES, M.A. (London: J. M. Dent and Sons. 1919. Pp. 141. Price 2*s*.)

THESE three books deal from different points of view with the improvement of towns. In *New Town* ("A Proposal in Agricultural, Industrial, Educational, Civic and Social Reconstruction") we have the description of a practical scheme for founding a new country town in England. The plan is more ambitious and more pleasing than in the case of garden cities, and is strongly idealistic. Whether the combination of individual freedom and corporate government, of industry and agriculture, of town and country pleasures will draw and maintain a population, remains to be seen; and on the nature and social spirit of the inhabitants will depend the realisation of the ideals of its founders. Limited as it is to some 3,000 acres, of which the greater part will be agricultural, the township may serve as a refuge or as an example, but cannot do much by itself in relieving congestion and dispersing population.

The Little Town is a description of typical country towns in the United States, of a size which would only let them rank as populous villages in England. They appear to be ugly, without plan, with very imperfect local services and with local administrations which are unwilling or unable to improve them. They fail to be centres of trade and civilisation for the farming neighbourhoods surrounding them, and they ape without success the habits of cities. The author has a missionary spirit, and would alter their physical appearance and the mental outlook of the inhabitants till they performed their true function in country districts. The book will be of considerable use to modern students of economic developments, since it describes with insight the origin and nature of a country population of which we know very little, which economic causes have brought into being in recent times. The points of contrast and resemblance between these towns and English villages form an interesting study.

The difficulty of providing satisfactory houses at a rent which the unskilled workman is able and willing to pay appears to be nearly as great in the United States as here, except that there

is no complaint of scarcity of material and labour. In the first book named above the problem is discussed ably and thoroughly, with careful accounts of the plans that have been suggested or carried out in the United States or elsewhere. The need for a new departure is supported by the following statements (abbreviated), on the authority of Mr. Nolen: (1) The minimum desirable house cannot be provided even under favourable conditions for less than $1,800 or $2,000. (2) A house costing that sum cannot be offered on an economic rent for less than $15 a month (that is 9 or 10 per cent. gross on capital). (3) Unless a workman with a normal family of wife and three dependent children has an income of $15 a week, he cannot afford so much rent. (4) More than one-half of all workmen receive less than $15 a week. The author believes that there is no escape from the logic of these facts. But, first, 10 per cent. gross, which is taken as corresponding to 5 or 6 per cent. net, allows a wide margin. Secondly, the majority of workmen are not living in new houses built at so high a cost. Thirdly, of the supposed half that have less than $15 weekly, many may be in districts where rent (including rates) is low. Fourthly, the normal family of three dependent children is not (in England) common; for example, in Northampton in 1913 in only 10 per cent. of the working-class households was the man the sole earner with three or more dependent children, and the corresponding numbers for other towns were under 20 per cent. Hence we are not driven to the conclusion that half the working-class population is badly housed. It should be added that "the minimum desirable house" means a conventional, not absolute, minimum, and that the amount that can or will be paid for rent out of $15 a week depends on the standard of living in other respects attained, which is again conventional, and on the relative value that a man puts on improved housing accommodation and on other goods. The author does not, however, depend on this argument alone, but shows that in New York and elsewhere private enterprise has not provided enough tenements, that satisfy the lowest requirements of sanitary laws, at a price which unskilled men can and will pay. The remedy proposed is a national housing scheme, self-supporting, in which the Central Government shall issue bonds to a very large amount at 3 per cent.; these shall be used by the separate States, each of which will have a housing fund and will issue bonds at 4 per cent. to an amount equal to the national bonds; these together will furnish 80 per cent. of the capital required in a municipal town-planning or housing scheme. The object is not

only to provide the capital at less than the commercial rate, but also to ensure that houses shall be provided on comprehensive and well-devised schemes and be of a satisfactory character. The author expresses great admiration for the pre-war housing policy of England, but she would hardly be contented with similar numerical results in the ambitious programme she proposes.

A. L. Bowley

The Equipment of the Workers. (London: G. Allen and Unwin. Pp. 334. 6*s*. net.)

The sub-title of this work is "An Enquiry into the Adequacy of the Adult Manual Workers for the Discharge of their Responsibilities as Heads of Households, Producers and Citizens," the inquiry being undertaken by the St. Philip's (Y.M.C.A.) Settlement Education and Economics Research Society of Sheffield, to which city as a whole it relates. The compilation was the work of a number of people and the editors prefer to remain undistinguished. The method of the inquiry was to select a number of workmen and workwomen and to find out by personal visits and conversation what was their degree of education and culture, what their outlook on or interest in social or political questions, what their tastes and how they occupied their leisure, what their attitude to religious organisations. Four-fifths of the book is devoted to a selection of more or less detailed accounts of the individuals examined, partly with the intention of giving a composite view of the classes whose relative numbers form the statistical basis of the report. These accounts are human, and in some cases amusing, but it is doubtful whether they add much to one's knowledge of working-class life or outlook; they are coloured by the enthusiastic personalities of the investigators, who report on rather ordinary people thus: "She strikes me as being awakened to the seriousness and splendour of life," "Green, spotty face and what seemed like a green, spotty soul." However, the details serve to explain the principles on which the classification was made.

408 men and 408 women were the subject of investigation; they were so grouped as to age (under 25, 25–55, over 55 years) and house-room (three, four, five or more rooms) and sex that in each group they were about 1 in 250 of the adult working class of Sheffield. These 816 persons were selected, not as acquaintances of the investigators or attendants at W.E.A. or other classes, but "by some neutral, accidental or random method of approach"; it appears that the process of selection followed

was likely to give a random sample, though the description on page 39 is not sufficiently detailed to make this certain.

When the questionnaires of these 816 persons were received they were classified as "well-equipped," "inadequately equipped," or "mal-equipped." In Class I. were placed "those who, without any question, were far above the average in equipment," the effective persons in labour, social or religious movements, and those who in obscurity were interested in books or music, or who had intelligent knowledge of affairs outside their immediate circle. In Class III. were placed all "who without question are far below the average in character or intelligence—or, as we usually found the case, in both." They are mainly unskilled or casuals; they have many vices and no virtues discoverable by the investigators. Classes I. and III. have positive characteristics, Class II. negative. They follow a leader, but initiate nothing; they are free from vice, respectable and self-supporting; they are just ordinary people, and the enthusiasts who undertook the inquiry despair of waking them from what they regard as their sleep.

The whole value of the inquiry from the statistical point of view depends on the adequacy of this classification. It comes to be this: certain numbers of persons were found to have the positive quantities defined as above, and more clearly delimited from the verbal descriptions already described. Is it possible, in the great majority of cases, to decide clearly whether a man or woman has the attributes of Class I. or Class III.? It appears that the number of marginal cases is relatively small, and if we can get a clear understanding of the attributes we can depend on the results (subject to the hazard of sampling) within a small but undefined proportion. The errors due to sampling are treated adequately, and sub-classification by age or house-room is not attempted because of the smallness of the numbers. The results are :—

	Men.	Women.
Well-equipped	$23\frac{1}{2} \pm 2$ per cent.	$22\frac{1}{2} \pm 2$ per cent.
Inadequately equipped	$68\frac{1}{2} \pm 2$,,	71 ± 2 ,,
Mal-equipped	$8 \pm 1\frac{1}{2}$,,	$6 \pm 1\frac{1}{2}$,,

where ± 2, etc., are the standard deviations from pure sampling. The authors use twice the standard deviation as the measure of roughness, and judiciously quote the results as "some two-thirds" inadequately equipped.

That nearly one-quarter of the population should be in the first class and less than one-twelfth in the third is perhaps a more favourable result than would have been anticipated.

A. L. BOWLEY

Die Anfänge des modernen Kapitalismus. By LUGO BRENTANO (München: Verlag der K. B. Akademie der Wissenschaften. 1916. Pp. 199.)

IT is a pleasure to be able to review the latest, though not very recent, publication of one so long and honourably known to English economists as Brentano. The book before us is a *Festrede* delivered in 1913, and printed three years later, with three solid appendices. The whole is a contribution to what one may call that *Sombartstreit* which has occupied German economists from the first appearance of Sombart's *Moderne Kapitalismus* in 1902. Unfortunately, Sombart's second edition (four volumes of which have recently come to hand here) only began to appear in 1917; so that Brentano is arguing with the earlier Sombart. A preliminary plunge into the four volumes shows that the earlier and later Sombarts are not identical. A few of the slashing, one-sided, historical generalisations against which Brentano's close and well-supported argument is directed are no longer found; and there appear to be traces of approach to Brentano's position on certain points. Whether these are a result of this attack or not, there can be no doubt that Brentano's weapon draws blood from the earlier Sombart.

The *Festrede* itself is devoted mainly to tracing the existence of capitalistic enterprise in Sombart's sense, that is to say, "enterprises" in which the *entrepreneur* strives for limitless gains and not for a mere customary livelihood, during the centuries between 400 and 1200 A.D., an age in which, according to the earlier Sombart, there was no such enterprise. Capitalistic enterprise, it is argued, maintained itself at Byzantium, but was taken up in the West long before the fourth Crusade gave the plunder of Byzantium to the Venetians and the Franks. Everywhere it is found at an early date in trade; because, whereas in primitive societies it is against good manners to aim at limitless gain from members of your family, tribe, or other "economic unit" (*Wirtschaftseinheit*), you may squeeze all you can out of strangers. It is found even earlier in war; since conquerors have never contented themselves with a mere customary livelihood at the expense of the conquered. Very early, also, is the actual loan of cash to those outside your "economic unit" at usurious rates.

Of these three forms of "capitalistic enterprise," the first and third were developed among the Teutonic peoples in the early centuries, say 600–1200 A.D., by strangers. It was the second, war for unlimited plunder, which was the home product, the force

which first broke down Teutonic *Naturalwirtschaft*; and soldiers serving for pay and hope of loot were the first large group of wage-earners. Charles Martell beat the Saracens and William the Bastard beat the Saxons with hired armies. The thesis is developed with uncommon learning.

In the Mediterranean cities meanwhile the hunt for gain in trade and the hunt for gain in war went hand in hand. Both in South and North the merchant followed the armies and preyed on conquered *Wirtschaftseinheiten* without a pang of conscience. Lastly, in the Crusades, commercially-minded Venetians and Genoese see the limits to their gains still further withdrawn, and plunge in with zeal. The Crusades produce Italian trading colonies in the Levant, and again the limit recedes. The Crusades bring in luxury trades, silk, cotton and velvet; and the industries devoted to them in the West are the first to be organised on the outwork system (*Verlagssystem*) or in big workshops (*Manufaktur*). "Der moderne Kapitalismus hat also im Handel, der Geldleihe und dem Kriegswesen seinen Anfang genommen" (p. 48). That is the thesis.

The first appendix deals with the conception and definition of the rather untranslatable *Wirtschaftseinheit*; and develops the view of the origin of the striving after unlimited gains in trade already referred to. It is pointed out that, in relation to non-members, mediæval "economic units" most hostile to unlimited gains amongst members—gilds, for instance—had an unlimited appetite for privileges and monopolies; and always allowed their members to sell "in the foreign," as we say in England, which might be in the next parish, at what price they could get. It was everywhere a crime to take usury from those of your blood; but spoiling the Egyptians was a very ancient practice.

The second appendix deals with the fourth Crusade, and underpins the views expressed in the text. We see blind old Dandolo driving hard bargains with the Franks, "tant con nostre compaignie durra," "so long as we go shares in this venture," like any other company promoter. He had no need to acquire the "capitalistic spirit" or to take lessons from anyone in "exploitation."

The third and much longest appendix (pp. 78–199) is called *Handel, Puritanismus, Judentum und Kapitalismus*. It is a critique of Sombart's exaggerated estimate of the Jewish factor in the development of capitalism and of Max Weber's rather fantastic notion (from which Sombart got the hint which he worked upon in his *Juden und das Wirtschaftsleben*) that the only true

"capitalistic spirit" is the "ethically tinted striving for gain" of those English Puritans who gave the word "calling" its double flavour, theological and economic. Brentano has no great difficulty in proving from the Bible and Bunyan and Benjamin Franklin and the Fathers, *first*, that Weber misrepresented the Puritans; *second*, that the Puritans who made most of the duty of following one's "calling" as a religious enterprise were mostly very humble folk—tinkers and such; *thirdly*, that where Puritans had most capital, in Geneva and Amsterdam, this particular theological development was not conspicuous; *fourthly*, that Richard Baxter does not stress the religious duty of work in one's "calling" much more than St. Basil, St. Augustine, and St. Benedict, who also must have been filled with the true "capitalist spirit" if Baxter was—as Weber maintained; and so on.

As for Sombart's teaching about how the desert put capitalism into the bones of the Jew, who was always looking into endless distances and fatally striving for limitless gains—Brentano calls it, quite rightly, far inferior to Buckle at his worst. Its associated suggestion that thenceforward the Jew was a sort of capitalism-carrying microbe is also combated. "Nicht wo Israel hinkommt, spriesst neues Leben empor, sondern wo ein wirtschaftliches Aufschwung stattfindet oder zu erwarten ist, da zieht Israel hin" (p. 165). The causal relation is just the reverse of that postulated by Sombart.

There is this about Sombart: he is an admirable intellectual gadfly. He has stung more German economists and historians into activity than any living writer. Not so many, however, in England as one could wish. Perhaps this entry of Brentano, whom we all know, into the *Sombartstreit* may provoke us. Sombart's second edition was in its third impression last year. How many copies of the first edition are there in English economists' libraries?

J. H. CLAPHAM

Co-operation in Many Lands. By L. SMITH GORDON and C. O'BRIEN. (Manchester: Co-operative Union. Pp. 272.)

THE title of this little book—which is well worth reading by students of co-operation—does not quite fully reflect the nature of its contents. The authors do indeed review the co-operation of "many lands"—not by any means of all in which co-operation may be said to be well established. There is, for instance, not a word about the co-operation either of India or of Japan, both of which are distinctly of interest. And the co-operation of

Russia, which has had a truly magnificent development, might be held worthy of more mention than in one passing sentence. But the number of countries discussed is quite sufficient to suit the purpose in point. In writing of them the authors have, indeed, fallen into some little mistakes. Their main aim evidently is, out of the practice of co-operation so recorded to construct a theory of co-operation and establish a carefully prepared classification, which, purporting to be new, turns out only a slightly modified replica of the learned classification made by the late Schulze-Delitzsch, and further elaborated by his successor, Dr. Crüger, which has been generally neglected by modern, more practically-minded students as over-discriminating and carrying subdivision to excess. To what end should all this hair-splitting be? Co-operation of its essence should be one. Its various forms, adopted to serve certain distinct purposes, are intended to supplement one another. A carpenter is a carpenter, whether he work with a saw or with a plane. A traveller is a traveller, whether he travel by omnibus or by the tube. The difference betweèn one traveller and another lies in the destination for which he is bound. In co-operation there are two distinct destinations. One is the emancipation of Labour by converting the wage-earning worker into a self-employer; the other is to cheapen living by co-operatively reducing price. Beyond these two immediate aims lies the common goal of brotherhood, which is to lead up to the co-operative commonwealth. The authors review rather too seriously the pleas put forward in the United Kingdom by those, at one time wrangling, brethren, now living peaceably, but still to some extent separately, beside one another, producers and distributors. Both are advocates' pleas *pro domo*. Of the two sides, the fact that the producers explicitly recognise the indispensableness of distributive co-operation, whereas the distributors will not hear of independent, not wage-paid, production, appears to indicate that they are the fairer of the two. The distributors, elated by their grandiose, most satisfactory, but, after all, easy success, ignore other aspects of co-operation—apart from the political one, which they have adopted from the Socialists rather than from the Trade Unionists, as the authors will have it. Of what their supremacy means, Irish agricultural co-operators have a tale to tell in the matter of dairies. Their production is necessarily limited to the consuming home market—supposing that they can attain to that "supremacy," which at the Aberdeen Congress they distinctly claimed as their aim. In the United Kingdom, however, we must un-

doubtedly lay our account with remaining an exporting country. After all, Schulze-Delitzsch's oft-quoted simile must be taken to be correct. He described distributive co-operation as the indispensable "foundation" of the structure to be raised, with credit, which is to provide funds for the prosecution of agricultural and industrial production, as the "walls," and production, the most difficult, but also the most emancipating, form of all, as the crowning "roof."

In reviewing the co-operation of various countries the authors, as observed, fall into a number of little mistakes, of which, however, too much should not be made. Thus it is quite incorrect to say that in Italy Socialism predominates in the co-operation established in towns, leaving it to be supposed that neutral and "catholic" co-operation have the rural districts to themselves. Indeed, the reverse would be at any rate nearer the truth. For, apart from the great *Alleanza* of Turin, the co-operative stores, which stand for a good deal, are neutral; and they, of course, have their seats in towns. Also the *Banche popolari*, which likewise stand for much, are for the most part neutral, with a sprinkling of "catholic" institutions among them. It is the *contadini* and the rural *braccianti*, and their unions located in such pronouncedly Socialist towns as Ravenna and Reggio (Emilia), which make up the main of the Socialist force. The French term of "*capital variable*," again, has been adopted to prevent a society's becoming a close corporation, like the Paris *lunetiers*. The sale of shares is not only forbidden in Belgium. In Italy it has led to great abuses—shares being sold at a high premium, which, though legally justified on the ground given by the authors of accumulated reserve funds, is practically determined by the rate of dividend paid, which, unfortunately, is still for the most part not limited. The references made to the "National" (ordinarily called the "Imperial") and the "Neuwied" unions indicates a want of acquaintance with co-operative organisations in Germany. And the authors are scarcely fair to the several "catholic" unions, the justification of whose existence, despite their denominational character—which is certainly to be regretted—lies in the peculiar conditions of their several countries, which constitute a case of *sint ut sunt, aut non sint*. To express a hope that in Belgium time may prove a "solvent" of the contention quite naturally existing between the Socialist unions (in towns) and the "catholic" of the rural *Boerenbond* in the country, is to own to an absolute want of familiarity with the conditions prevailing. The "catholic" societies were formed

for the express purpose of combating Socialist propaganda; the Socialist societies, on the other hand, have adopted Gambetta's view that "*Le cléricalisme, voilà l'ennemi.*" The "Catholics," be it said, are not by any means as intolerant or as priestridden as their name and organisation appear to imply. Thus far, at any rate, they have rendered good service.

The authors read our British distributive co-operators a very useful lesson in pointing out that, in spite of much high falutin language currently in use, their co-operation is one of *business*. However, they a little underrate the power of the Wholesale Society to influence the business of the retail societies. The "Outline of the History of Co-operation" given will be welcome to not a few readers. And the chapter on "Co-operative Finance" discusses thoughtfully problems of present urgency. Altogether the book is decidedly a valuable addition to co-operative literature.

HENRY W. WOLFF

NOTES AND MEMORANDA

COST OF LIVING AND WAGE DETERMINATION

THE general increase in prices throughout the world has resulted in computations of index-numbers by the official statisticians of most countries, and has raised in an acute form all the practical and logical difficulties that underlie the problem of making a single measurement of the change in the purchasing power of money. Since in Australia the legal fixation of the minimum wage depends on the level of prices, it is natural that there considerable attention has been given to the subject, and we should expect that Mr. Knibbs, with his usual energy, would have considered the subject in its practical and theoretical bearings. In fact, in Report No. 9 of the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics (July, 1919), we find not only detailed statements of the changes in prices; wages, employment, etc., but also an appendix of fifty-five closely-printed pages in which the theory of price-indexes is discussed minutely. It is to this report that the references in the following paragraphs refer.

A convenient notation for the discussion is as follows[1]: At date A let $P_1, P_2 \ldots$ be the prices of units of commodities, $Q_1, Q_2 \ldots$ the quantities assumed to be purchased; at a later date B, let $p_1, p_2 \ldots, q_1, q_2 \ldots$ stand for prices and quantities. Write $r_1 = p_1 \div P_1$, etc., for the ratio changes of prices.

The expenditure in year A is then $Q_1P_1 + Q_2P_2 + \ldots = E_1 + E_2 + \ldots = SE$, and in year B $q_1p_1 + q_2p_2 + \ldots = e_1 + e_2 + \ldots = Se$.

Since the ratios, r, are more exactly determinable than the quantities, Q, especially in wholesale prices, most of the work on the theory and practice of index-numbers has been directed to choosing commodities, ascertaining their price changes, and then considering how the ratios should be combined. It is well known that, for wholesale prices in times when change has not been rapid and special commodities have not shown abnormal move-

[1] See *Statistical Journal*, 1919, p. 343, where some aspects of the problem are discussed.

ments in price, very little depends on the choice of weights, or on the choice of the base year in which for computation prices are equated to 100. American statisticians and Mr. Knibbs (pp. 185, 207, etc.), apparently disliking the abstractness of this method and believing that the problem of measurement is capable of exact solution, are inclined to discard the use of ratios, and use the following direct method: The quantities, Q, are ascertained at a standard date either by estimates of the mass of commodities used in the case of wholesale prices, or by working-class budgets in the case of retail, and SE is computed at this date. At a subsequent date the quantities are valued at the new prices, and $Q_1p_1+Q_2p_2+ \quad =SQp$ is computed; prices are then said to have changed in the ratio $SE : SQp$. The resulting index is, of course, $100SEr \div SE$, and the method is simply equivalent to weighting the price ratios by the estimated expenditure in the standard year. Writers who use this method have not, however, escaped the difficulties of weighting, for if a different base year had been selected, where the quantities were Q'_1, Q'_2, etc., the index would have become $100SQ'p \div SQ'P$ (where, in fact, the price ratios are weighted by Q'_1P_1, etc.), and the choice of a particular year has always been accidental (*e.g.*, a year in which budgets were collected). Mr. Knibbs says (p. 208): "With price-ratio methods we are working in the dark, and it can only be because of this that some economists have ventured the opinion that one may neglect weights altogether. This proposition arises from a wrong apprehension of the essence of the problem." This statement follows paragraphs in which the difference between various methods is shown by illustrations involving only two or three quantities whose price changes are very diverse. Later (p. 225) we read that "the aggregate-expenditure or aggregate-cost method is alone valid." Such a dogmatic statement is by no means justified by the algebraic analysis or arithmetical illustrations given, and it suggests that the writer has not appreciated the reasons which have led to other methods. The controversy is an old one, and it might have been hoped that the principles of measuring price changes in normal times were settled, and that it was understood that in the end the measurement must be approximate and that no definite number could be given as absolutely correct.

A much more important question is the measurement of the change in the cost of living when the standard budget, established at one date, is no longer applicable owing to changed conditions of supply or of habits. So long as no radical change has taken

place, the method formerly used of calculating the movement, first by the quantities at date A ($SQp \div SQP$), and then by the quantities at date B ($Sqp \div SqP$), and then averaging the results, is likely to give a reasonable measure; Mr. Knibbs suggests taking the average of the quantities for each commodity separately ($\frac{1}{2}S(Q+q)p : \frac{1}{2}S(Q+q)P$), which is no doubt a good plan, but hardly, as he says (p. 219), "the only valid basis of comparison between two years in which the usage is different." This is surely another case, in which there is no unique theoretically true method, and the test of validity is that different plausible methods give approximately the same results. The practical difficulty in application is the determination of a second standard to give q, unless we can depend on estimates of changes of consumption of wheat, meat, etc., for the nation as a whole; for it is always a very troublesome business to obtain an adequate collection of budgets, and till equilibrium is attained the collection ought to be annual.

When, as at present in the United Kingdom, the regimen has been substantially changed, by the alteration in the proportion of home and foreign meat, the shortage of sugar and eggs, and the substitution of butter and margarine, the method of averaging becomes unreal and may lead to absurd results. Mr. Knibbs apparently despairs of making any measurement in such cases (p. 229, xxvii., xxxiii.); yet some solution must be found, not only in Australia where wage determinations depend legally on the cost of living, but here also, where arbitrations and wage arrangements take it definitely into account. The existing method of computing the cost of a pre-war standard, based on a period in which sugar, eggs and butter were freely obtainable, is certainly not valid at the present date. The problem is to determine the present cost of a standard modified in detail, but giving the same nourishment and the same pleasure or satisfaction, as the pre-war standard. A method was suggested last May (*Statistical Journal*, May, 1919, p. 351) in which the change of standard was measured by the ratio of the present budget to the pre-war budget both at pre-war prices ($SqP \div SQP$); this ratio is a tentative measurement of the ratio of the satisfactions or pleasures obtained at the two dates, and is perhaps more in accordance with reality than a measurement based on calories; and on a further assumption (*loc. cit.*) it is suggested that a pre-war wage multiplied by $Sqp \div SqP$ would afford the same purchasing power as before. In this there is evidently something too rigid; to take two commodities, suppose 2 lb. of butter at 1*s*. 6*d*.

and 1 lb. of margarine at 6*d.* (in all 3*s.* 6*d.*) have been replaced by 3 lb. of margarine at 1*s.* 4*d.* (in all 4*s.*); the latter costs 4*s.* now (qp) and would have cost 1*s.* 6*d.* (qP) before, and the ratio of satisfaction is 1*s.* 6*d.* to 3*s.* 6*d.*, or 3/7ths. To replace the satisfaction derived from the former 3*s.* 6*d.*, we should then have to multiply the 4*s.* by 7/3rds, obtaining 9*s.* 4*d.*, which, of course, need not be spent on 7 lb. of margarine, but on milk to supply vitamines or jam or other comestible. This is an extreme instance, but it shows that the validity of the method depends on the averaging away of errors, and in analysing the process we come across many difficulties in the measurement of satisfaction which have no numerical solution. It may, however, be affirmed that when prices of commodities increase at unequal ratios, a purchaser can in general evade part of the injury by buying more of that whose price increases less than the average and less of the more appreciated: if plum jam doubled in price and strawberry jam increased only 50 per cent., a housekeeper who had been buying them in equal quantities would now buy more strawberry and less plum.

It is doubtful whether any algebraic process will give reliable results, and in fact the only practicable method at present appears to be to frame a new budget of goods obtainable, and in fact purchased, by housekeepers with the same skill of adjusting purchases to desires as in the case of the earlier budgets. Instead of measuring the satisfaction by formula, we may recognise that it is subjective and a matter of opinion, and obtain from representative working-class women a budget which in their opinion would now give the same variety and pleasure as a selected budget of 1914, care being taken that the energy value is the same. The result would give a new conventional budget, the ratio of whose cost to the pre-war budget would give a rough measure, perhaps as accurate as any possible more refined measure, of the change of that vague entity "the cost of living." Where economic theory yields insufficient equations and the refinements of mathematical statistics fail, we may still fall back on common sense to obtain an opportunist solution.

A. L. Bowley

THE INSTABILITY OF FOREIGN EXCHANGE

WITH the prospect of inconvertible paper money in many countries for a considerable time, it is important to recognise that a high degree of instability of exchange rates is almost inevitable, and is not solely due to the continual increase of such money to which Governments have been obliged to resort. The question may be looked at from the point of view of very short periods, such as day to day, or rather short periods, such as a year, or over considerable periods of years. In each case a consideration of the circumstances leads to the conclusion that a high degree of instability is to be expected with inconvertible paper currencies. Taking the Anglo-American exchange, for instance, in the very short period, the position is apt to be that a number of people have undertaken a liability to pay so many dollars in New York by a certain date. Those who have taken this risk may be Englishmen, Americans, or even Frenchmen or Germans. Now if Americans have not purchased British goods, or stocks, or services to an extent sufficient to create a supply of dollars payable at the rate of exchange previously existing, the situation is not necessarily remedied by a further fall in the value of pounds in dollars. *Prima facie*, indeed, that fall makes the gap wider. If four million dollars are due to be paid, and Americans are due to pay one million pounds, if the rate were four dollars to the pound, that would clear the market. If the rate is three and a half dollars to the pound, however, there are not enough dollars obtainable with the million pounds, and competition does not tend to drive the rate up to four dollars, but, on the contrary, forces it lower and makes the impasse worse. It is like a "bear squeeze" on a stock market, when bulls have been caught short.

Fortunately there are mitigating circumstances which may generally be reckoned upon to prevent the rate falling away indefinitely; but it is important to note that the mitigations do not act as promptly as might be desired, and the fundamental instability is the dominating fact. The mitigating factors are mainly three:—

(1) Stocks and shares held in England fall in dollar prices and become more attractive for American purchasers.

(2) Loans in dollars can be effected at some rate of interest or other.

(3) Part of the day's demand for dollars is in connection with new business which may be cancelled.

As to (1), it has to be noted that if the stocks and shares pay

interests in pounds, a fall in value arising in this way must exceed the fall in the exchange rate before purchase by Americans becomes attractive, unless the lower rate is expected to be temporary.

If this expectation exists, the scope for fluctuation is limited, but if "temporary" does not mean a very brief duration, an expectation of ultimate improvement in the exchange will not have much influence, because the market for stocks is mainly speculative, and no one will buy stocks to-day, even though they have fallen, if he expects a further fall very soon.

Similarly, there is a difficulty about loans. A banker cannot afford to lend dollars on the security of pounds if he expects a further fall in the value of pounds. It means that he is taking the risk of being squeezed later on.

The cancellation of orders for American goods also is liable to be prevented if there is an expectation of a further fall in exchange. Likewise the placing of orders by Americans for British or other foreign goods affected by the sterling exchange is liable to be delayed until dealers think that dollar prices have touched bottom.

The same delaying tendency affects other foreign markets in some degree. Those who owe money to England delay payment, in spite of favourable rates for remittance, so long as they think that still more favourable rates may be obtained in the future. Thus it comes about that a fall in exchange, once begun and having some substantial cause, brings about conditions which lead to a further fall, and no quick remedy occurs.

In the longer period, such as a year or two years, the influence of relative demands for goods and services will tell, but still it is comparatively short-period demands and supplies with which one is concerned. Large changes in the sources of supply can be effected only over periods of many years, and the degrees of inelasticity may be considerable over periods of one or two years.

Some approximate idea of the great scope for fluctuation in exchange rates over such periods may be obtained by means of mathematical formulæ showing the bearing of these elasticities on the rate of exchange of monies in abstract simplified cases in which one commodity represents exports for each country. The question is somewhat similar to that of a protective tax dealt with by the writer in Vol. XVII. of the ECONOMIC JOURNAL (p. 98), and further discussed by Professor Edgeworth (Vol. XVIII., pp. 392 and 541), and the same notation may be used. Taking, for the present, two countries only, each exporting one commodity,

let a_1 and a_2 be the quantities exported by each (and imported, therefore, by the other), and let the supply and demand curves be—

	England.	America.
Demand	$y=f_1(x)$	$y=f_2(x)$
Supply	$y=F_2(x)$	$y=F_1(x)$

Let R be the ratio of exchange of money expressed as the number of dollars to the pound.

Then we should have the following equations to determine R—

$$R=\frac{F_1(a_1)}{f_1(a_1)} = \frac{f_2(a_2)}{F_2(a_2)}$$

and $a_2f_2(a_2) = a_1F_1(a_1)$ or $a_1f_1(a_1) = a_2F_2(a_2)$.

A measure of the sensitiveness of R to a small change of the conditions may be found by considering the effect on R if a small new additional payment of Z dollars has to be made, which may be conceived as an old loan falling due, the shape of the demand and supply curves for commodities remaining unaltered.

The units of quantity and price are arbitrary, and may be selected so that $a_1=a_2=1$ and $R=1$ in the original state of equilibrium. The introduction of an additional payment of Z dollars affects the third equation in this way. The English sellers receive $a_2f_2(a_2)$ dollars for the goods they sell, but the amount available for purchase of American goods is that sum less Z.

Therefore $a_2f_2(a_2)-Z=a_1F_1(a_1)$.

From this and the other two equations we can determine $\frac{dR}{dZ}$ when $Z=0$. This can be expressed in terms of the coefficients of elasticity of the curves of supply and demand, but the inverses of these coefficients are more convenient. Moreover, the coefficients for supply curves are negative, and it is easier to comprehend the meaning of the formula if we take the negative inverse of Marshall's coefficients of elasticity for the supply curves, which will always be positive. Call these inverse coefficients d for English demand $\left(i.e.\ d=-\frac{a_1f_1'(a_1)}{f_1(a_1)}\right)$ and ∂ for American $\left(\partial=-\frac{a_2f_2'(a_2)}{f_2a_2}\right)$. For the supply curves we take s for the English $\left(s=\frac{a_2F_2'(a_2)}{F_2(a_2)}\right)$ and σ for the American $\left(\sigma=\frac{a_1F_1'(a_1)}{F_1(a_1)}\right)$.

$\frac{dR}{dZ}$ when $Z=1$ is $\dfrac{-1}{\dfrac{1+\sigma}{d+\sigma}+\dfrac{1-\partial}{s+\partial}}$

d, δ, s and σ are all positive, and it is clear, as might be expected, that normally the introduction of Z causes R to diminish, but circumstances are possible in which the effect might be the reverse. The magnitude of δ, which measures the inelasticity of American demand, is important. If δ is greater than unity to a sufficient extent, curious results might follow. When, however, American demand is comparatively elastic, or near unity, d and σ are the important factors in the expression, especially d, as the value of σ tells both ways. If d be large, *i.e.*, British demand for American goods very inelastic, the rate falls very rapidly with a very small unfavourable disturbance.[1]

In the short or comparatively short period, supply curves will have a distinct degree of inelasticity, *i.e.*, s and σ will be magnitudes comparable with d and δ. It may be noted, however, that a uniform rate of supply prices would be represented by $s=0$ and $\sigma=0$, and the expression would become

$$\frac{-1}{\frac{1}{d}+\frac{1}{\delta}-1}.$$

If, in that case, American demand were the shape of a rectangular hyperbola (*i.e.*, $\delta=1$), the expression reduces to $-d$, and the rate of fall of exchange would be exactly proportional to the inverse of the elasticity of British demand.

The existence of other countries having trade relations with both England and America could be discussed by similar methods, but with more intricate formulæ. For the present, however, all that need be said is that the existence of extremes of inelasticity of supply and demand is rendered less probable.

A multiplicity of products of exchange likewise increases the chance that some of them will have comparatively elastic demands, and violent movements of exchange rates such as have been experienced this year are not likely often to occur when more normal conditions have been reached, and there is not so great dependence of Europe generally on American supplies. So long, however, as large repayments of loans, or payments of interest, have to be made on specific dates, there must be scope for speculative manipulation of the exchanges to the great disadvantage of the debtor countries so long as the gold standard is not in existence and maintainable. Further, it seems likely that, in any event, considerable variability of exchange rates in paper money can hardly be avoided, even if war indebtedness

[1] A contract already made to pay dollars is equivalent to $d=$infinity.

were non-existent. The safeguard of a gold standard lies in the fact that gold is a commodity for which the short-period demand and the short-period supply are highly elastic everywhere. It is true that if gold is shipped in quantity to any country in settlement of debts, it raises general prices in that country; that is to say, the value of gold in that country is reduced, just as in the case of other commodities. The important point, however, is that the change of general price-level is slow compared with the change produced in the price of any ordinary article of trade when the quantity offered is increased, and this slowness prevents the possibility of bull and bear operations in the short-period market. It is probably safe to say that no one ever buys or sells gold with the consciousness that its value is going to be influenced by the operation. Practically, therefore, the existence of adequate stocks of gold available for export means, in the above formula, that d, δ, s and σ cannot be of a magnitude implying highly inelastic short-period demand or supply curves for the totality of imports and exports, and the less violent movements of international ratios of exchange, which depend on comparatively long-period factors, alone are possible.

In conclusion, it may be remarked that the violent break in American exchange which has taken place is probably not a bad thing to happen once, just to compel traders and the public to realise the position. The inference, however, from theoretical considerations, appears to be that we must recognise that, in present circumstances, individual interests do not coincide with national interests in the matter of buying from America. Any advantage to an individual who desires to have something quickly which he cannot procure, at the moment, except from America, may be far less than the loss which his action causes to others in depressing the exchange and compelling them to pay dearly for the goods which they buy. The position of maximum advantage is not reached by leaving things alone to settle themselves. The check to imports, which is, of course, produced by means of the fall in exchange, is only obtained by a heavy tax—in favour of America—on those imports which have to be obtained from America, and this tax can be partly avoided if the British Government itself imposes restrictions on imports.

C. F. BICKERDIKE

THE MONETARY ECONOMY OF BOLSHEVISM.

THE monetary system of capitalist society is certainly not an ideal one. Money has too great an influence in economic life. The aim of economic life is consumption, and production is obliged to accommodate itself to it, as it has done ever since primitive times. However, in proportion to the development of modern capitalism, another factor has been developed, which has obtained an undesirably great influence on production, viz., the monetary system. The quantity of existing money (or credit) has too important a *rôle* in the determination of the quantity of production. This sometimes has very disagreeable consequences; but there is another quality of the monetary system which obviously is still more unfavourable, and that is that money has not a fixed value. The consequence of this is the constant fluctuation of the level of prices. This necessitates a proportionate change of wages. This change cannot take place without embittered fights between employers and workmen, and it is quite superfluous to describe the well-known drawbacks of these fights to production and to economic life generally. The present monetary system is, indeed, one of the weakest points of capitalism.

The enemies of capitalist society have used this weak point of capitalism for their own purpose. In the theoretical campaign of Bolshevists against the present form of society the attacks against our monetary system play a predominant *rôle*.

The idea of the removal of the monetary system from economic life is not new, but it is only Bolshevism which has put it into practice. It has become one of the most elementary principles of Bolshevism and one of the most effective arguments of Bolshevist propaganda. This fact gives a peculiar importance to the theoretical question whether it is possible to establish an economic system without money, or whether it is possible to substitute for our monetary arrangements an improved method.

The method by which Bolshevism tries to carry out its scheme is to reduce *ad absurdum* the present monetary arrangements, and then to build up, on the ruins of it, its own economic system, in which money will be replaced by labour-tickets.

Up to the present there are two Bolshevist experiments which deserve our particular attention: those of Russia and Hungary. In each of these countries the first part of Bolshevism's monetary scheme—the destruction of existing arrangements—had been carried out with success, just as other parts of the Bolshevist programme in which they endeavoured to destroy only and not to

build. In destruction, the Bolshevists are perfect masters. Both the Soviet Governments have multiplied the quantity of bank-notes in such a measure that the continuance of this economy must necessarily lead to the devaluation and demonetisation of paper money. As regards the result, it comes to the same thing whether their doing so is in accordance with an aim-conscious scheme or it is merely a consequence of inevitable necessity. The latter supposition is the more probable. Even if they intended to keep the old-fashioned monetary system of capitalist society, they could not manage their affairs otherwise than they do at present. The only important source of revenue of the Soviet State is the printing press. Therefore, they are compelled to follow an inflationist note policy, whether they like it or not. It is extremely characteristic of the skill of Bolshevists in the domain of propaganda that they are able to utilise even this unfavourable circumstance to the advantage of their agitations, thus giving them a popular theoretical basis.

"Money cannot be abolished by decree. Those who think that one can repeal the monetary system between one day and the next, such persons think, indeed, in an anti-Marxist manner." These words were used by Bela Kun to the assembly of the delegates of trade unions concerning the economic programme of the Hungarian Bolshevist Party. With these words he tried to excuse the financial policy of the Soviet Government which—contrary to expectations—had not carried out at once the abolition of the monetary system. He was right in so far that the thought of the repeal of money is entirely anti-Marxist. Marx himself was never an adherent of this scheme. In his work, *Zur Kritik der Politischen Oekonomie*, he styles the project of a labour-ticket system "a rare Utopia." But this fact alone would not prevent the abolition of money as soon as possible. His followers are well accustomed to neglect the Marxian doctrines if the interest of the Soviet *régime* requires it. However, in the case of the monetary system, they found it convenient to remain—at least for the present—faithful to Marx. For, although it would not be at all difficult to issue a decree for the demonetisation of paper money, this measure would have soon brought with it heavy drawbacks to Bolshevism. The establishment of a labour-ticket system would not change at all the general economic situation of the Soviet State; it would neither improve production nor diminish the workmen's claims. The Soviet Government would be obliged to continue its inflationist policy, and this would entirely discredit the labour-ticket system. Besides, so long as the Soviet

régime is not stabilised, the majority of the population would more willingly accept the old bank-notes in payment than the labour-tickets. This was the case in Russia and in Hungary, where the population had preferred the Romanov rubels and the notes of the Austro-Hungarian Bank to the notes issued by the Russian and Hungarian Soviet Governments. And, last, but not least, the realisation of the labour-ticket system supposes the entire equality of all wages. Therefore, it is obvious that the practical execution of the labour-ticket scheme, even from the point of view of Bolshevism, would be premature.

Let us next examine its theoretical basis. The labour-ticket system of Bolshevism originates from the Marxian theory of value, according to which "the value of any article is the labour-time socially necessary for its production." In other words, the living costs of an average working family during the average time socially necessary to the production of a commodity gives the social self-costs of that commodity. If we examine this statement from a mathematical point of view, supposing that the average workman's daily output is A, the workman's family's daily necessities are $B+C+D$, we get the following equation :—

$$\text{One labour-day} = A = B + C + D.$$

However, this equation would be true only in the case where the labour-time socially necessary for production of B quantity of foodstuffs, C quantity of clothing, and D quantity of other goods needed by the workman's family would be just so much as the labour-time socially necessary for the production of A quantity or, say, iron goods. And the probability of this case is unusually small. Incomparably more likely is the eventuality that the objects necessary to the life of the workman's family claim either more or less labour-time than the commodity produced by him; and that results in a departure from the theoretical formula.

This difference would be enormously enhanced in practice. For, if the actual workmen were to get for their ticket in respect of one day's labour just so much goods as they have produced during a day, there would not remain anything for those classes of the population which do not take direct part in production. The number of this class would increase, for socialised production needs a more extensive administration. Besides that, there would be an unproductive class, composed of those who are unable to work. The costs of living of these must be covered from the work of direct producers. The result would be that the exploitation of workmen would not cease with the death of capitalist society, but it would continue under communism equally. The only sub-

stantial difference would be that the workmen would be under one single exploiter—the State. This exploiter would be obliged to draw from the result of productive work the costs of living of indirect producers and of the unproductive class. In consequence of this, the labour-tickets could not be simple acknowledgments of the hours and days of work, and they must possess most of the qualities of money. They must play a much more important *rôle* in economic life than the simple mediation of the barter of human work and goods. This could be the *rôle* of labour-tickets only in the event of each workman receiving the whole counter-value of his work. For, if the result of the work were to be less than the quantity corresponding to the labour-tickets in issue, the State would be obliged to raise exchange-values. On the other hand, if the quantity were more than that corresponding to the labour-tickets, the Soviet Government would be obliged to diminish them. The purchasing power of labour-tickets would be just as inconstant as that of our money. The labour-ticket would not be anything else than the money of our society: a *mandat* over an uncertain and variable part of the aggregate of production.

The workmen, whose greed was increased by rising of prices in the first period of Bolshevism, would try to transmit the burden of increasing prices to the other categories of workmen. The Soviet Government would always find itself between the Scylla and Charybdis of the different trade unions. It would be obliged to be always issuing more and more labour-tickets in order to satisfy the wants of workmen, and to continue an inflationist policy, ending in the entire demonetisation of its new paper money, with a name such as "labour-tickets."

Thus the system of labour-tickets would by no means be better than the system of paper money. The device of a rejection of a monetary system is, like all other devices of Bolshevism, suitable for winning the sympathy of the crowd, but incapable of bearing objective criticism.

PAUL EINZIG

OFFICIAL PAPERS

Board of Agriculture. Wages and Conditions of Employment, 1919. [Cmd. 24 and 25.] Vol. I. General Report by Mr. Geoffrey Drage.

Board of Agriculture for Scotland. Interim Report on the Economics of Small Farms and Small Holdings in Scotland. [Cmd. 144.]

Royal Commission on Agriculture. Interim Report. [Cmd. 473.] 3*d*. *Ditto Evidence. Vol IV.* [Cmd. 445.] 1*s*. 3*d*.

Royal Commission on the Income Tax. Fifth, Sixth, and Seventh Instalments of Evidence with Appendices. [Cmd. 288–5, 6, 7.]

Report on Arbitration under the Munitions of War Acts, 1914-18. House of Commons, 1919, 185.

THE *twelfth* of a series, bringing up to the end of 1918 the proceedings taken under the Conciliation Act of 1896.

Coal Industry Commission. Vol. III. Appendices, Charts, Indexes. [Cmd. 361.] 6*s*.

Report of the Empire Cotton Growing Committee. [Cmd. 523]. 1*s*. 6*d*.

The Housing Problem in Germany. Report prepared in the Intelligence Department of the Local Government Board. 1*s*.

Conditions of the Iron and Steel Works in Lorraine, in the Occupied Areas of Germany, in Belgium, and in France. Report of Commission appointed by the Ministry of Munitions. 4*s*.

Report of Committee on Meat Supplies for the United Kingdom. [Cmd. 456]. 3*d*.

Report on the Conditions and Prospects of British Trade in India at the Close of the War. [Cmd. 442.] 2*s*. By H.M. Senior Trade Commissioner, T. M. Ainscough, O.B.E.

THE Indian Industrial Commission has insisted that the Government in future must play an active part in developing India and making it more self-contained. The competition of the United States and of Japan with the United Kingdom for the trade of India is apprehended.

Fifty-fifth Annual Report of the Registrar-General for Ireland, 1918. [Cmd. 450.]

THERE has been a slight recovery upon 1917 in the marriage-rate and the birth-rate; the death-rate, 18 per 1,000 of the population, is the highest recorded since 1900.

Final Report of the Committee on Currency and Foreign Exchanges after the War. [Cmd. 464.] 1*d*. 1919.

"We have found nothing in the experiences of the war to falsify the lessons of previous experience, that the adoption of a currency not convertible at will into gold or other exportable coin is likely in practice to lead to over-issue, and so to destroy the measure of exchangeable value and cause a general rise in all prices and an adverse movement in the foreign exchanges." Accordingly, the Committee reinforce the recommendations made in their interim report (referred to in the ECONOMIC JOURNAL, Vol. XXVIII. p. 456.).

Report of the Committee appointed by the Secretary of State for India to enquire into the Indian Exchange and Currency. [Cmd. 527.] 6*d*. 1920. *Minutes of Evidence.* [Cmd. 528.] 3*s*. *Appendices.* [Cmd. 529.] 2*s*. *Index.* [Cmd. 530.] 6*d*.

[The causes in the rise of the price of silver—shortage of production (especially in Mexico), the demand of China, etc.—having been traced, it is recommended that the rupee should be equated to 11·300016 grams of pure gold (ten rupees to the sovereign).]

Bulletin of the New South Wales Board of Trade. Living Wage (Adult Males).

A collection of decisions of the Arbitration Court of New South Wales, and other matter bearing on the relation between cost of living and a living wage. Mr. Justice Heydon decided that cost of living as a basis for a living wage cannot in times of war and uncertainty be measured by index numbers.

Bulletin of the United States Bureau of Labour (Washington).

No. 232. *Wages and Hours of Labour in the Boot and Shoe Industry*, 1907–16.

No. 233. *Operation of the Industrial Disputes Investigation Act of Canada.*

No. 254. This number contains a translation of Dr. Stephen Bauer's *Arbeiterschutz und Völkergemeinschaft*, under the heading "International Labour Legislation and the Society of Nations."

The Nineteenth Financial and Economic Annual of Japan, 1919.

This report, like its predecessors, contains beautifully illustrated statistics as to national revenue, exports, and imports, etc. The total trade increased in 1918 over 1917 by 38 per cent., over 1913 by 167 per cent. The rise in prices up to 1817 appears from index numbers based on fifty-one commodities to be much less than it has subsequently become. [The median of the fifty-one relative prices—the fear 1900 being *base*—is for 1913, 130; for 1917 only 174.]

Obituary.

Lord Cunliffe.

Walter, first Baron Cunliffe of Headley, died suddenly but peacefully on January 6th, 1920. He will be remembered for the services he rendered his country when the war broke out in 1914, as Governor of the Bank of England for the abnormal period of five years, and as one who was largely responsible for the economic clauses of the Peace Treaty.

But, before his life and services are described, it may be helpful to say something about his family, for knowledge of the stock and environment from which he sprang seems relevant to a consideration of his career and character. The Cunliffes, Lan-

cashire folk, first appear in the history of London banking about 1821, under the style of Roger Cunliffe, jun. and Co. In 1827 the name of Brooks is first seen joined with that of Cunliffe in London, and the Manchester banking firm (absorbed by Lloyd's Bank in 1900) of Brooks, Cunliffe and Co. represents the same connection, while about 1836 a firm of bill-brokers styled Roger Cunliffe and Co. sprang from the same stock, and remains to this day. In 1862 two of the Cunliffes (the father and uncle of the late Governor) joined the Quaker, George William Alexander, as bankers and bill-brokers under the name of Alexanders, Cunliffes and Co. Thanks to their combined talents—George William Alexander had been the leading spirit of his firm since his eighteenth year—and to the failure of the rival firm of Overend Gurney, the partnership was very successful up to the time of its dissolution in 1877. Thereafter the Alexanders went on under their own name, and Walter Cunliffe's father and uncle became directors of the National Discount Co.

Thus Walter Cunliffe came of the authentic stock of the great race of English private bankers which, with its Quaker connections, had won fortune by integrity, economy and industry, rather than by brilliant strokes of international finance such as distinguished the great financiers of the 'eighties and 'nineties. Born in 1855, and educated at Harrow and Cambridge (where he won the mile), he had in 1880 acquired a love and experience of outdoor life, and means, or expectation of means, to enjoy it. At the same time, there was no obvious family business which he was bound to follow, that of his father and uncle having gone to a limited company. But in 1880 he came to the City, and began to acquire with thoroughness knowledge of the details, as well as the broad principles, of merchant banking and acceptance as practised in London and nowhere else. In 1883 he was able to start a small firm of his own, which in 1890 became Cunliffe Brothers, of White Lion Court, Cornhill. It grew in size, and did a careful, not large, merchant and acceptance business, chiefly with India, enjoyed the highest credit, and at the end of 1919 was amalgamated with Messrs. Fruhling and Goschen under the style of Goschens and Cunliffe.

On the death of his father in 1895 Walter Cunliffe, the eldest son, inherited the property in Surrey, from which he afterwards took his title, and such a share of that millionaire's estate as ensured him what Aristotle called "a necessary equipment of external goods," apart from the profits of his own business. In the same year he, who always distrusted politicians, had become

involved in what brought him quite near, even in normal times, to public life; he became a director of the Bank of England. It was certain, from the beginning, that when his turn came he would become Governor, and after the usual two years of service as Deputy, he duly succeeded another strong character, Mr. Alfred Cole, in 1913.

Even the most conservative English bankers, and those freest from the entanglements of "international" finance, had been made aware, from the time of the American crisis of 1907 to that of the outbreak of the first Balkan War, of the growing complexity of the influences which could affect even solid England's financial system. But few, even of the most alert, had thought out exactly how a first-class international crisis would affect the City. Thus when London, in July, 1914, nearly destroyed itself by its own financial strength, the course of events must have been at least as surprising to the Governor as to anyone else. He had to bear a great responsibility in circumstances which no one had precisely foreseen; he was a relatively unknown man at the time, and he had neither the sort of experience nor the intellectual power which would have helped him to judge what really was happening. But he had other qualities which offset these disadvantages. He was thoroughly and deservedly trusted, he was brave and determined, he could and did take decisions quickly, and by adhering to them, even if they were not ideal, he inspired confidence. In recognition of his services he was the first to receive a peerage after the outbreak of war, and, in the opinion of the City, he deserved this honour. The actual measures taken by the Bank of England, and for which, by its constitution, the Governor is almost entirely responsible, were nearly all marked by practical sense and moderation, and were well designed to achieve definite objects in the recovery from the August crisis: and, for the reasons given above, the Governor's personality contributed as much as the measures themselves to the success of the policy supported by the Treasury.

In the normal course Lord Cunliffe should have retired from the Governorship in 1915, but when that time came it was generally realised that his retirement would be a mistake, and he therefore remained in office until the spring of 1918. During that period he visited the Allied countries, and also, in 1917, accompanied Mr. Balfour's mission to the United States. His policy as Governor of the Bank in war time was marked by the independence and caution which were to be expected in the descendant of a family of private bankers. It was also distinguished by the desire to dominate, natural in one who had

always been his own master, and by an indifference to criticism not surprising in one of his independent position. He was blamed —it is hard to say with what justice—for neglecting to take violent measures to stop the fall in American exchange in 1915, and also for taking the violent measure of raising the Bank-rate in 1916. He had a great dislike of speculation of all kinds, and made enemies in consequence. His frequent abruptness of manner had the same result. But his friends were also numerous, and cherished for him a very real affection.

After he ceased to be Governor in 1918, his zeal in the public service was not diminished. He went on an important mission to Spain, and presided over the Committee on "Currency and Foreign Exchanges After the War." Students of that Committee's report will see therein the marks of his personality, moderation, absence of sweeping change, a search for the most practical means of returning to the old conditions. When the Armistice came it was inevitable that the Government should make use of him again, and he became one of the three British delegates on the Commission to Consider Reparations.

Over Lord Cunliffe's activities in Paris, as over much of his activity during the war, the veil of official secrecy still hangs, and the present writer is unable to lift it. But Lord Cunliffe's general view of Germany's ability to pay very large amounts in reparation, and of the desirability of making her do so, is no secret. And eventually this view triumphed, at least so far as to get itself embodied in the Peace Treaty. Lord Cunliffe returned to London, and received many tributes of admiration for his public services. The final report of his Currency Committee appeared near the end of 1919, and the Government at once adopted its most important recommendations. Thus Lord Cunliffe at the beginning of 1920 had much on which to congratulate himself. He knew that the value of his services to his country was appreciated; he had made arrangements for the future of his own business which were very well received in the City; the Government had accepted his policy in regard to currency; the Peace Treaty, including the reparation clauses, had been adopted; and the Reparation Commission had not begun to work. *Felix opportunitate mortis.*

D.

Current Topics

The following have been elected to membership of the Royal Economic Society:—

Akbar, S. A.
Allan, J. B. (life).
Anantaram, R.
Armitage-Smith, S. A.
Baggallay, W. R.
Bailey, R. F.
Barlow, Sir Montague, M.P., K.B.E., LL.D.
Birkett, M. S.
Cooke, S. R.
Cooke, W. A.
Cooper, H. R.
Craig, J. I.
Dale, H. B.
Davies, Rev. G. (life).
Davies, Sir J., K.B.E., M.P.
Deming, J. H.
Dutt, K.
Dutta, A. B. (life).
Finer, H.
Franks, L. L.
Friedman, E. M. (life).
George, A. F.
Gupta, Prof. P. D.
Halsall, C. R.
Hamilton, H.
Howitt, H. G. (life).
Hulme, Miss E. I.
Jambhekar, G. G. (life).
Jen, Kai-Nan (life).
Koch, F. von (life).
Latham, E.
Lewis, G. P.
Mellor, E.
Merson, F.
Miller, H. E. (life).
Mitchell, A. A. (life).
Morrow, T. J.
Mullins, G. W., M.B.E.
Nath, Basheshar.
National Mutual Life Assurance Society.
Orton, W. A.
Peake, H. O.
Price, Dr. J. B.
Pugh, W. F.
Randall, Mrs. G. B.
Ray, R.
Sankar, R. K.
Shanahan, E. W.
Sharp, H. G.
Skandinaviska Kreditaktiebolaget.
Spring-Rice, E. D.
Strachan, D. A. (life).
Sugden, F. E., A.C.I.S. (life).
Swedish Consul-General London.
Vakil, C. N. (life).
Whale, P. B.
Wightman, S.
Williams, R. O.
Williams, T.
Wise, C. H.

The following have been admitted to library membership: Dartmouth College Library, U.S.A.; Mercantile Library, St. Louis, U.S.A.; Michigan University Library, U.S.A.; North Carolina University Library, U.S.A.; Ohio State University Library, U.S.A.

THE issues of THE ECONOMIC JOURNAL for June, 1918, March, 1919, and June, 1919, are now out of print. As a few additional copies are urgently required for the purpose of completing sets, the Secretary of the Royal Economic Society would be much obliged if any Fellows who can spare their copies of these issues would return them to the Assistant Secretary, Mr. S. J. Buttress, 6 Humberstone Road, Cambridge. A payment of 5*s*. will be made for each copy so returned.

MR. H. PHILLIPS, of Merton College, who has been appointed Lecturer in Economics at the University of Bristol, took a first class in Modern History and a diploma, "with distinction," in Economics and Political Science, at Oxford.

MR. T. H. JONES, who was appointed last autumn to succeed Professor Macgregor in the Chair of Economics at the University of Leeds, was an alumnus of the University of Wales. He has been Assistant to Professor Gonner at Liverpool, and to the late Professor Smart at Glasgow. His books on *The Tinplate Industry* and on *The Economics of War* are well known.

A POLISH correspondent writes: "The liberation of Poland has brought with it a great intellectual revival, and four new Polish universities have been founded—at Warsaw, Posen, Lublin and Vilna. In each of these universities several chairs are occupied by economists. It may be of great interest to Englishmen to learn that a renewed interest has been aroused in the study of classical political economy. The High School of Commerce have published a translation of Ricardo's *Principles*, while Adam Smith's *Wealth of Nations* will appear in Polish shortly. These are not, however, the first translations. A Polish edition of Ricardo's *Principles* was printed in Warsaw in 1826. In 1811 Knoske published in Vilna a volume of 298 pages containing a short account of Smith's *Wealth of Nations*. In 1814 a short translation of Chapter V. of Book IV. (the Digression concerning the Corn Trade and Corn Laws) was published in Warsaw. Nevertheless, English classical economy has not exercised hitherto any influence on Polish economic thought. The work of Ricardo was never popular, and Adam Smith's theories were only advocated at the time of the Congress, 1815–1831, by Mostowski, the Minister of the Interior, who advocated a free trade policy and was a great admirer of the doctrine of the *Wealth of Nations*.

He did not succeed in his endeavours, and Prince Lubecki's protectionist system triumphed. It is to be hoped that the new translations of Smith and Ricardo will contribute to an intensification of the study of economics in Poland."

THE series of *Oxford Tracts on Economic Subjects* is designed to present the leading principles of political economy in a simple form. No doubt it will be difficult to obtain a hearing for the voice of reason in the present mood of the many. "So fiery is the ardour for action, so critical and threatening the present discontent, so strong the tide of change, so high the hopes," to use the words of the Introduction, which is signed by the Heads of several Oxford Colleges. They continue: "Those who would shrink from studying a standard book, or indeed any book, on economic science without a teacher (and very few can have ready access to oral teaching) should find the series within their compass. . . . Of the first few numbers some will deal with the chief conceptions of the science. Thereafter the logical order of themes, as these are found in the standard books, will not be followed rigidly. The more usual approach will be that of the ordinary reader who turns fitfully to economics in his practical perplexities." Among those who have promised to write, or to help in other ways—presumably by suggestions and criticism—are most, if not all, of the teachers of political economy at Oxford. There are also included distinguished economists bred at other universities, Professor D. H. Macgregor, for instance. The list of names lent occupies the greater part of a page, extending in alphabetical order from Professor W. G. S. Adams to Mr. Hartley Withers. Mr. John Murray, of Christ Church, Oxford, will act as Secretary. The publisher is Humphrey Milford, The Oxford University Press, Amen Corner, E.C.

IT is proposed to make an award this year of the John Henry Gartside Scholarship, which is administered by Electors appointed jointly by the Manchester Chamber of Commerce and the University of Manchester. Candidates must send to the Registrar, on or before May 1st, evidence of good character and such testimonials and record of their previous work, including evidence that they have a knowledge of two modern languages besides English, of which German shall as a rule be one. Every scholar elected shall enter as a student of the University of Manchester for one session, after the date of election, for a course of study approved by the electors with a view to qualifying himself for

going abroad to study commerce and industries. The remainder of the period of study, with such intervals or vacations (if any) as the electors may sanction, shall be spent by the scholar in the study of subjects bearing on commerce and industries in any approved country in Europe or in America, or partly in one of the above-mentioned countries and partly in others. Since its foundation in 1902, ten reports of Gartside scholars have been published, and important contributions have been made through the Foundation to the study of industrial and commercial organisation in other countries.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

JANUARY, 1920. *Fifty Years of Canadian Progress.* E. H. GODFREY. *Some Changes in the Distribution of the National Income during the War.* J. E. ALLEN. "The wage-earning classes receive a larger share of the national income than they did before the war." Important contributions to the subject by Prof. Bowley, Dr. Stamp, and others in the course of the discussion. *Expansions useful in the theory of frequency distributions.* A. GULDBERG. The construction of frequency functions, arbitrary, yet related to the normal error-function is extended from one to two or more dimensions.

The Round Table.

MARCH, 1920. *International Financial Co-operation.* A survey of the economic situation in different countries justifies the advice: "Europe must renounce its national hatreds, must tax itself, live hard, and rely as far as may be on its own resources." More specific remedies are required for the disorder of the exchanges. Import of raw materials must first be made in order to make export possible. There is suggested the formation of a British company to trade with Austria by way of branches which would parcel out their own materials among Austrian manufacturers. The writer is "in general agreement with Mr. Keynes' book" as to the limitation of our claims upon Germany. *The Growing Responsibility of Labour* is evidenced by the industrial truce on the outbreak of war, the retirement of the Triple Alliance from *Direct Action*, "the calm and orderly presentation of facts" by Mr. Bevin when claiming 16s. a day for the dockers, and by other incidents. Contrary appearances are accounted for by the disappointment of the hopes for a better time after the war, the confidence inspired by the greatly increased numbers of Trade Unionists, the settlement of old scores postponed by the war.

The Quarterly Review.

JANUARY, 1920. ***The Effect of a Capital Levy on Trade and Industry.*** H. GEOFFREY ELLIS. The valuation of all assessable wealth presents insuperable difficulties. Economy and increased production, without any variation of present methods of taxation, are recommended. ***Female Intemperance.*** A SKILLED

LABOURER. The evil is greater than appears from statistics. *The Economic Future of the Scottish Highlands.* J. R. MORETON MACDONALD.

Edinburgh Review.

JANUARY, 1920. *Industrialism in Wales.* REV. J. K. MORGAN. The Welsh Miners do not respect the freedom of a non-unionist. They are paid more than educated ministers, sometimes as much as 30*s.* or 40*s.* a day. They are bent on destroying capitalism. *Parliament and Finance.* J. A. R. MARRIOTT, M.P. Carefully thought out recommendations for the effective control of expenditure by Parliament are strongly urged. *Nationalisation.* THE EDITOR. The State can subsidise particular industries from the produce of the remainder; but not all industries, unless it is more efficient than private enterprise. Which there is no reason to expect either from experience or from the character of Civil Servants. Mr. Cole's plan of charging the Budget with any excess in the expenditure on mines over their yield would reimpose the "dead hand of bureaucracy." "The only alternative to the freedom and elasticity of enterprise financed with private money is the monotonous tyranny of the bureaucratic State."

The Contemporary Review.

DECEMBER, 1919. *The Plight of the Taxpayer.* RIGHT HON. HERBERT SAMUEL. The taxation of war profits is advocated as just if leaving free, as an allowance for saving, say, £1,000 a year, not penalising thrift more than other taxes, as practicable and satisfactory to the working classes. It might bring in £1,000,000,000. *The Problem of the National Debt.* PROF. A. C. PIGOU. Though an internal debt like ours of, say, £7,000,000,000, does not involve any *direct* cost to the country as a whole, yet it threatens an indirect cumulative injury to production. A special levy would be less injurious to work and saving than the traditional plan of interest *plus* a small sinking fund. There might be a subsidiary impost on incomes derived from work, emphasising the exceptional unique character of the levy. The apprehension of a general slump in values and other difficulties are smoothed away.

The Fortnightly Review.

FEBRUARY, 1920. *The Problem of the Currency.* PROF. A. C. PIGOU. Bank credits to the Government were the prime cause of a rise in prices. High prices, attended by high wages, made an increase of currency. "On pain of complete financial breakdown, the Government was compelled to allow bankers to purchase from them currency notes." The melting and export of gold being prohibited, currency notes, though legally convertible, have become depreciated with respect to gold. The free export of gold cannot be safely permitted till industry and the general export trade have somewhat recovered. Even if convertibility of the notes were restored, prices would still be about 115 per cent. above the pre-war level, owing to the depreciation of gold; the cause and cure of which do not rest with any one country.

The Nineteenth Century.

FEBRUARY, 1920. *Women in Industry.* GERTRUDE TUCKWELL. Artificial restrictions on the competition of women with men should be removed; but mothers should be withdrawn from the labour market by allowances such as have been proposed by Mrs. Sidney Webb, or Mrs. Eleanor Rathbone, or Mr. Seebohm Rowntree.

Indian Journal of Economics (Bombay).

NOVEMBER, 1919. A special number containing the papers read at the first conference of the Indian Economic Association, including studies on village economics and rural life, the progress of co-operation, economics in ancient India, and other topics of Indian interest. Professor H. Stanley Jevons advocates "economic development" upon a "scale hitherto undreamt of." The present sound position of Indian finance is favourable to the project. Provincial loans and other sources are recommended. "Once the great 'snowball' of economic progress is well started on its path it will grow in weight and volume."

The Quarterly Journal of Economics (Cambridge, Mass.).

NOVEMBER, 1919. *The Present and Future of the International Trade of the United States.* F. W. TAUSSIG. Among the questions discussed are: How will international loans affect trade between the lending and borrowing countries? What will be the future course of prices? Prof. Taussig does not expect that the gold standard will be abandoned. A range of prices below that of the war period, but higher than the pre-war range, is predicted. *Railroad Valuation by the Interstate Commerce Commission.* HOMER B. VANDERBLUE. *British Industry and the American Embargo.* L. M. SEARS. Referring to old unhappy far-off things. *A Division among Theorists in their Analysis of Profits.* C. J. FOREMAN. *Price-fixing and the Theory of Profit.* KEMPER SIMPSON. *Debts, Revenues, and Expenditures and Note Circulation of the Principal Belligerents.* L. R. GOTTLIEB.

The American Economic Review (Cambridge, Mass.).

DECEMBER, 1919. *An Adventure in State Assurance.* A. J. PILLSBURY. The success of an experiment in California shows that "the possibilities of insurance for the relief of human hardship" have not been fully utilised. *Suppression and Non-working of Patents.* FLOYD W. VAUGHAN. With special reference to the dye and chemical industries the compulsory working of patents is advocated. *American Minimum Wage Laws at Work.* DOROTHY W. DOUGLAS. *The Cost of the War and how it was Met.* E. R. A. SELIGMAN. The direct money cost of the war to the belligerents is put at $210,000,000,000; the greater part defrayed from loans. *The Income Tax as applied to Dividends.* CARL C. PLEHN. *Women's Garment-making Industries in New York.* HARRY BEST. The agreements have not brought peace, only temporary truces.

Political Science Quarterly (New York).

DECEMBER, 1919. *The Flexibility of Prices.* HENRY L. MOORE. From records of the production and the price of cotton for twenty-five years there is deduced an empirical relation between the change in production (x) and the change in price from year to year. Thus if there is no change in x, y rises by 8·2 per cent. "There is a secular trend in prices tending to increase by 8·2 per cent. annually." Whether the farmers will benefit themselves by restricting the output, is investigated by observing dy/dx, the "flexibility" of prices. With the aid of an empirical supply curve it is decided that "the farmers' greatest profit will be obtained when they restrict their output 35 per cent." *Absenteeism in Labour.* PAUL H. DOUGLAS. An investigation of the amount, effects, and causes of the loss of time caused by the absence of employees from their work for whole days or less; with suggestions of remedial measures.

Journal of Political Economy (Chicago).

NOVEMBER, 1919. *Intensive Industrial Training in War-time.* A. B. WOLFE. *Accounting as an Administrative Aid.* J. O. MCKINSEY. *Will Prices Fall?* H. G. MOULTON. The organisation of labour and industry prevented a substantial decline in the months following the Armistice. Whether "the present vicious spiral price increases" can be broken depends largely on the solidarity of those organisations.

DECEMBER, 1919. *The Management of Labour.* SUMNER H. SLICHTER. *The Marine Workers of the Port of New York.* B. M. SQUIRES. *An Assessment Roll for the Income Tax.* CARL C. PLEHN.

JANUARY, 1920. *Problems of Budgetary Reforms.* HENRY C. ADAMS. *War-time Industrial Employment of Women in the United States.* A. B. WOLFE and HELEN OLSON. The records of American experience do not afford grounds for judgment on the employment of women in skilled industries and on other issues. It is not true that the war has caused a great improvement in women's wages. The principle of equal pay for equal work is not carried out. The future industrial position of women in America depends little on the changes occasioned by the war.

The Annals of the American Academy (Philadelphia).

NOVEMBER, 1919. The volume is devoted to *The Railroad Problem.* Numerous experts take part in a discussion of "current railway issues."

JANUARY, 1920. *The New American Thrift* is the subject of this number. Messrs. CARVER, MCVEY, FRIDAY, WITHERS, and other well-known economists contribute exhortations to saving and investment.

Review of Economic Statistics (Cambridge, Mass.).

JANUARY, 1920. *General Business Conditions* during 1919 are investigated by appropriate "series," and represented on a fine

"index chart." *World Currency Expansion During the War and in* 1919. J. S. DAVIS. The widespread war-time *expansion* of currency (distinguished from "inflation," defined as expansion "out of proportion" to the work of exchange), both among belligerents and neutrals, and the decline of banking reserve-strength among the former in Europe, are exhibited and discussed. There is as yet no evidence of any considerable contraction of currency. *The Basis for Credit Expansion under the Federal Reserve System.* W. M. PERSONS.

Journal des Economistes (Paris).

NOVEMBER, 1919. *Le relèvement économique de la France après la Révolution.* G. SCHELLE. *La taxation des benefices de guerre en Scandinavie.* M. DE WADRIN et F. P. RENAUT.

DECEMBER, 1919. *Critique de la stipulation de réciprocité dans la clause de la nation la plus favorisée.* A. DESCHAMPS. *Fournitures de guerre en Allemagne.* A. RAFFALOVICH.

Revue d'Economie Politique (Paris).

JULY-AUGUST, 1919. *La politique de paix sociale en Angleterre: les "Whitley Councils."* E. HALÉVY. The writer, a well-known student of English institutions, discourses instructively on recent measures aimed at industrial peace. *L'état actuel de la science des finances en Italie.* G. PIRON. The Italians have not constructed a science of finance; they present only original *aperçus*. *Une solution à la hausse du niveau général des prix.* J. MORET. Return to the pre-war price-level is counselled.

SEPTEMBER-OCTOBER. *L'Aluminium et la bauxite.* M. AUGÉ-LARILSE. "*Baraques*" *du ravitaillement.* H. BOURGUIN. *Le Café et le Marché du Havre pendant la guerre.* *La doctrine sociale de Lénine.* CHARLES RIST. Out of his own mouth the tyrannical anarchist is condemned.

NOVEMBER-DECEMBER, 1919. *La France et le traité de paix avec l'Allemagne.* The financial, the economic, the labour, and other clauses of the Treaty are surveyed by different writers.

De Economist (La Hague).

NOVEMBER, 1920. *Wettelijk aangemoedigde Bevolkingsvermeerdering.* J. A. LEVY. A study on the population question, with special reference to laws of inheritance. Continued and concluded in DECEMBER.

JANUARY, 1920. *Het einde der Suikerconventie.* Prof. J. D'AULNIS DE BOURROUILL. *Von Böhm of Sax.* Prof. Dr. H. BORDEWISK. Two leaders of the Austrian school are compared. *De duurte en de geldpolititiek.* E. C. VAN DORP.

Jahrbücher für Nationalökonomie und Statistik (Jena).

NOVEMBER, 1919. *Die Kriegsanleihen der europäischen Grossmächte.* H. KÖPPE. The survey of European war-debts is continued and concluded.

Giornale degli Economisti (Rome).

OCTOBER, 1919. *Sul probleme delle case.* G. ANGRISANI. On the housing question. *Esili e costo degli scioperi.* A. G. CANINA. *L'imposta sui profitti di guerra.* L. NINA.

DECEMBER, 1919. *Gli hodierni aspetti dell' economia dei trasporti.* CARLO DI NOLA. *Contributo alla teoria matematica della interpolazione.* L. AMOROSO. A new and original method of interpolation.

JANUARY, 1920. *Lo studio scientifico dei fenomeni finanziari.* G. BORGATTA. *L'imposta sui profitti di guerra e sui patrimonii.* L. NINA.

La Riforma Sociale (Turin).

SEPTEMBER-DECEMBER, 1919. *Se le leggi economiche patiscano eccezione.* M. BILLIA. *Le importe in Germania durante la guerra.* A. G. CANINA.

Scientia (Bologna).

VOL. XXVI., No. XCII.—12. *The Problem of Population, Food Supply, and Migration.* G. KNIBBS. Referring to his mathematical theory of population which forms an Appendix to the Australian Census, the Commonwealth statistician dwells on the tendency of population to increase inordinately. At the moderate rate of 1 per cent. per annum the present population of the world, say, 1,700 million, would increase in fifty years to 5,000 million.

La Vita Italiana (Rome).

JANUARY, 1920. *Stato economico presente.* VILFREDO PARETO. Mordant criticisms of prevalent economic fallacies lead up to interesting observations on monetary problems.

NEW BOOKS.

English.

CLARK (ALICE). Working Life of Women in the Seventeenth Century. London: Routledge. 1919. Pp. 335.

FIGHT THE FAMINE COUNCIL. A report of the International Economic Conference called by this Council, November, 1919. London: Swarthmore Press. 1920. Pp. 126. 4*s*. 6*d*.

[Professor Brentano took a very gloomy view of "The economic dilemma of Germany." More miners are required in the Ruhr district. The miners are physically and mentally below their pre-war condition, and accordingly the reduction in hours from eight and a half to seven does not result in greater output. The enterprise required to prosecute the industry is crippled by the Treaty of Versailles, rendering the outlay of capital precarious. The clause that "labour is not to be regarded as a commodity or article of commerce" cannot alter the fact that the workers' condition is affected by the number of unemployed, a number very great in consequence of the peace terms. Among other contributors to the report are Dr. F. Wieser, of Austria, Sir George Paish, Mr. Maynard Keynes, and many other experts.]

HOBSON (S. J.). Guild Principles in War and Peace. London: G. Bell. 1918. Pp. viii + 176. 2*s*. 6*d*.

[The system described as "wagery" is denounced, and the Whitley Committees are unfavourably criticised.]

JOHNSTON (T. B., J.P.). Industrial Peace. Capital, Labour, and Consumer. A Basis of Co-operation. Bristol: Arrowsmith. 1919. Pp. 21. 6*d*.

[Referring to the Report on the Pottery Industry, U.S.A. Department of Commerce, Miscellaneous Series, No. 21, the Managing Director of Powntey and Co., advocates full publicity as to costs of production, wages, profits, etc. Agreements adopted by 75 per cent. of the operatives and the employers representing them should be obligatory on the whole trade; and membership of trade associations and trade unions should be compulsory. A control of prices according to cost of production, without the higgling of the market, would then be possible. Other blessings would follow: international co-operation, tariffs equalising costs, democratical kartels, stoppage of speculation.]

KIRCALDY (ADAM W.). Industry and Finance (Supplementary Volume). Being the results of inquiries arranged by the Section of Economic Science and Statistics of the British Association during the years 1818 and 1819. Edited by A. W. K. London: Pitman. 1920. Pp. viii + 151. 5*s*. net.

LINK (HENRY C.). Employment Psychology. The Application of Scientific Method to the Selection, Training, and Grading of Employees. London: Macmillan. 1909. Pp. xii + 440. 10*s*. 6*d*. net.

NARAIN (BRIJ). Essays on Indian Economic Problems in Lahore. Punjazee Press. 1919. Pp. 307. Rs.2.8.

[The application of the principles of economics to Indian conditions, Indian *versus* Western industrialism, the rise of prices in India, Indian currency reform, and other burning questions, are tersely discussed. The author is Professor of Economics at the Sanatana Dharama College, Lahore.]

Post-graduate Teaching in the University of Calcutta. Calcutta: University Press. 1919.

[As explained in the Preface by Sir A. Mookerjee, there are two broad divisions—Political Economy and Political Philosophy. Four compulsory examination papers are set on the general principles of both subjects and four additional papers in either division. Special study is also required of Indian conditions under one of six heads, viz., famines, co-operation, railways, industrial organisation, currency problems, land systems.]

RAWLLEY (T. C.). The Silk Industry and Trade. London: King. 1919. Pp. 188. 10*s*. 6*d*.

REW (SIR R. H.). Food Supplies in Peace and War. London: Longmans. 1919. Pp. vii + 183. 6*s*. 6*d*. net.

ST. CLAIR (OSWALD). The Physiology of Credit and of Money. London: King. 1919. Pp. 170.

WEBB (M. DE P.). Britain Victorious! A Plea for Sacrifice. (Second edition.) London: King. 1920. Pp. 157.

[There is recommended a drastic reduction of Government expenditure; also of the National Debt, but not by a levy on capital.]

WEBB (SIDNEY and BEATRICE). The History of Trade Unionism. (Revised edition, extended to 1920.) London: Longmans. 1920. Pp. 784.

[The work published in 1894 and reviewed in that year is here continued by the addition of three chapters dealing with more recent events and ideas. To be reviewed.]

WOOLF (LEONARD). Empire and Commerce in Africa. A Study in Economic Imperialism. London: Allen and Unwin. Pp. 374.

[Written as a report for the Labour Research Department, 34 Eccleston Square, Westminster, where the book may be obtained. To be reviewed.]

American.

BOGART (ERNEST L.). Carnegie Endowment for International Peace. Preliminary Economic Studies of the War. Direct and Indirect Costs of the Great World War. New York: Oxford University Press. 1919. Pp. 338.

[The (gross) total direct cost incurred by the belligerents is estimated at over $208,000,000,000, from which is deducted, so as not to be counted twice, the advances made by several countries to their allies, some $22,000,000.]

BLOOMFIELD (M.). Management and Men. New York: Century Co. 1919. Pp. xv+591. $3.50.

[Labour conditions in Great Britain during the last years of the war and the first weeks of Armistice are discussed.]

BISSENDEN (PAUL F.). The I.W.W. A Study of American Syndicalism. New York: Longmans, Green and Co. 1919. Pp. 432. $4.

CALBERTSON (W. S.). Commercial Policy in War-time and After. A Study of the Application of Democratic Ideas to International Commercial Relations. With an Introduction by H. C. Emery. New York: Appleton. 1919. Pp. xxiv+479. $2.50.

["A certain amount of independence of action must be surrendered by individual nations." "The economic life of the world has burst the confines of the individual State." Nations should agree to prevent unfair practices by means of Commissions under the League of Nations, who would investigate and make public infringement of rules.]

DUBLIN (L. I.). Mortality Statistics of Assured Wage-earners and their Families. New York: Metropolitan Life Insurance Co. 1919. Pp. viii+397.

GOLDSTEIN (J. M.). America's Opportunities for Trade and Investment in Russia. New York: Russian Information Bureau. 1919. Pp. 13.

[Unless America and the Allies are alert, Germany will again dominate Russian commerce.]

HAMMOND (M. B.). British Labour Conditions and Legislation during the War. (Carnegie Endowment for International Peace. Preliminary Economic Studies of the War.) New York: Oxford University Press. 1919. Pp. 335.

HENDERSON (ROBERT) and SHEPPARD (H. N.). Graduation of Mortality and other Tables. (Actuarial Tables, No. 4.) New York: Actuarial Society of America. 1919. Pp. v+82.

[The fourth of a set which the Actuarial Society is publishing to meet the requirements both of students and trained actuaries.]

HUTCHINSON (E. J.). Women's Wages. A Study of Industrial Women and Measures suggested to increase them. (Columbia University Studies, Vol. lxxxix.) New York: Longmans. 1919. Pp. 179. $1.50.

HOLLANDER (JACOB H.). American Citizenship and Economic Welfare. Baltimore: Johns Hopkins Press. Pp. 132. $1.25.

[Three lectures delivered at the University of North Carolina in the spring of 1919, on the Weil Foundation.]

JOHNSON (E. R.). Ocean Rates and Terminal Charges. Washington: U.S. Shipping Board. 1919. Pp. 84.

[The authority of an expert attaches to Prof. Johnson's recommendation that the control of rates should be continued until the shortage of shipping tonnage has been surmounted.]

LEVINE (LOUIS, Ph.D.). The Taxation of Mines in Montana. New York: Huebsch. 1919. Pp. 141.

[To be reviewed.]

RAWLLEY (RATAN C.). Economics of the Silk Industry. A Study in Industrial Organisation. London: King. 1919. Pp. 343.

LLOYD (J. W., Ph.D.). Co-operative and other Organised Methods of Marketing Californian Horticultural Products. (University of Illinois Studies.) Urbana: University of Illinois. 1919. Pp. 142. $1.25.

[The author is professor of "Olericulture" at the University of Illinois.]

NEILSON (F.). The Old Freedom. New York: Huebsch. 1919. Pp. 176. $1.

[The doctrines of G. Sorel, Karl Marx, and certain Fabians are criticised.]

NORTHCOTT (CLARENCE H.). Australian Social Development. (Columbia University Studies.) New York: Longmans, Green and Co. 1918. Pp. 302. $2.50.

VEBLEN (T.). The Vested Interest and the State of the Industrial Arts. New York: Huebsch. 1919. Pp. 183.

WANG (C. C.). Legislative Regulation of Railway Finance in England. (University of Illinois Studies.) Vol. VII. Urbana: University of Illinois. 1918. Pp. 196. $1.50.

[The author has been an honorary fellow of Illinois University, and is now Director of a Chinese railway.]

War-time Changes in the Cost of Living. (Research Report No 17.) Boston: National Industrial Conference Board 1919. Pp. 31.

French.

DUVAL (H.). Graphiques comparés des rentes francaises de 1798 à 1918. Paris: Alcan. 1919. 2.50 francs.

MERIGNAC (A.). La guerre économique allemande. Paris: Sirey. 1919. Pp. 92.

[This is a publication of the "Comité pour la défense du droit international," which has already issued several brochures, one of them dealing with the deportations from the North of France. The pillage committed by the Germans, their destruction of manufactures, robbery of the machinery, imposition of forced labour, are attested with the aid of official documents left by the Germans in Belgium.]

MOUNIER, A. Les faits et la doctrine économique en Espagne sous Philippe V., Gerónimo de Uztariz, 1670–1732. Bordeaux: Cadoret. 1919. Pp. 302.

PROBUS. La constitution sociale de la France. Paris: Granet. 1919. 1 franc.

TSONDEROS (E. J.). Le relèvement économique de la Grèce. Préface de M. Charles Gide. Paris: Berger-Levrault. 1919. Pp. 254.

German.

BÖHM-BAWERK (EUGEN VON). Kapital und Kapitalzins. Erste Abtheilung. Geschichte und Kritik des Kapitalzinstheorien. Dritte Auflage. Innsbruck: Wagner. 1914. Pp. 747.

[This third edition of the first division—the historical and critical part of the Austrian leader's masterpiece—is described as "revised and enlarged." The additions are not so considerable as those made to the second edition (reviewed in THE ECONOMIC JOURNAL, 1901). The historian contents himself with brief references to the most recent literature.]

LINDAHL (ERIK). Die Gerechtigkeit der Besteuerung. Lund: Gleerupska. 1919. Pp. 224.

[To be reviewed.]

Denkschrift über den Grosschiffahrtsweg Rhein-Main-Donau. Veröffentlicht vom Main-Donau Stromverband. Munich: Karl Gerber. 1920.

HARTMANN (GUSTAV). Die Stellung der Arbeiterschaft im neuen Deutschland. Munich: B. Hiller. 1919.

HEYN (DR. OTTO). Zur Valutafrage. Pp. 70. Munich and Leipzig: Dunckler und Humblot. 1920. 2.80 marks.

MUCKLE (FRIEDRICH). Das Kulturideal des Sozialismus. Pp. 289. Munich and Leipzig: Dunckler und Humblot. 1919. 15 marks.

ONCKEN (HERMANN). Lassalle. Eine politische Biographie. Stuttgart: Deutsche Verlagsanstalt.

POTTHOF (HEINZ). Rätesystem und Berufsparlament. Munich: B. Hiller. 1919.

SCHMIDT (Prof. Dr. M.). Der Zahlungsverkehr. Vol. II.: Internationaler Zahlungsverkehr und Wechselkurse. Leipzig: G. A. Gloeckner. 1920.

SCHULZE-GAEVERNITZ (Professor VON). Der Frieden und die Zukunft der Weltwirtschaft. Offener Brief an die gerecht denkender Minderheiten in den allierten und neutralen Länder. Zurich: Orell Füssli. 1919. Pp. 32.

[Having secured the attention of the "right minded" by admitting some of the wrongs perpetrated by his countrymen in Belgium and in France, and by proving his own innocence, the able writer dwells on the blockade, which has cost Germany many hundred thousand young lives, and protests against the conditions, both economic and political, of the Treaty. "The peace which senile (*überlebtes*) capitalism and imperialism forced on the young German Socialist State (*Sozialstaate*) by the whip of hunger cannot last."]

Italian.

BACHI (RICCARDO). L'Italia economica nel 1918. Città di Castello: Lapi. 1919. Pp. 352. The tenth annual.

CARLI (F.). L'equilibrio delle nazioni secondo la demografia applicata. Bologna: Zanichelli. 1919.

CHIMIENTO (F.). L'attribuzione del prodotto industriale ai suoi fattori. Torino: Bocca. 1920.

CHESSA (F.). Costo economico e costo finanziario della guerra. Rome: Athenæum. 1920.

EINAUDI (L.). Osseviazioni critiche intorno alla teoria dell' ammortamento dell' imposta e teorie delle variazioni nei redditi e nei valori, capitale susseguente all' imposta. (Reale Academia delle Scienze di Torino.) Turin: Bocca. 1919. Pp. 83.

EINAUDI (L.). Il problema della finanza post-bellica. (Biblioteca di Scienze Economiche). Milan: Fratelli Treves. 1919.

PRATO (G.). Riflessi Storici della economia di guerra. Bari: Laterza. 1919. Pp. 226.

PRATO (G.). Problemi del lavoro nell' ora presente. Milan. 1920.

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FOOD CONTROL IN WAR AND PEACE

FOOD is the commodity in which there is the greatest measure of common interest. Yet during the earlier years of the War wide differences of opinion prevailed and acute disputes continued as to whether supplies of food coming through the usual private channels should be interfered with by the State and the prices be regulated. Since the War ended disputes have been revived and now there are rival schools in which are to be found supporters and opponents of methods of State Control. This situation is no doubt due to the fact that food, like our other wants, is an article of trade which must keep its share of profit and payment for the service rendered by those who produce and distribute it. It is, however, pre-eminently the article which should be placed, as far as possible, within the region of public interest, and as far as possible outside the area of private or commercial gain.

It would be stupid to support any method of control over food merely because of any political theory. But it is folly to ignore the lessons of experience and the facts which have been revealed whenever a state of scarcity has existed in any particular article. Serious scarcity in any one article of food in common use is at once the cause of such increased demands for other articles that many, if not all, foods soon feel the effects of shortage, so that a state of shortage is speedily reflected both in the price and the method of distribution. In pre-war days when all foods were plentiful, they were perhaps better supplied to the people by the ordinary operations of trade and business than food could be supplied to the people by the Government during the conditions of shortage created by the War. The question is not one for rivalry on a mere point of efficiency in distribution. It concerns the needs of millions of people several times a day, and is too big

a question to be left absolutely either to economic theory or to trading interests.

Many of our foods afford proofs of the most scandalous waste in conveyance and in detailed distribution. This is especially true of fish and vegetables. Yet both these foods are to-day very dear, though they could be made comparatively cheap without any risk to the reasonable remuneration of those who serve in the production of these articles. There are instances on record of great quantities of fish being deliberately wasted to avoid the risk of the effects of reduced prices involved in placing great quantities of it upon the market. The standard of either commerce or economics which permits waste of that kind is not very healthy.

The process by which a State department must try to fix prices which will be fair to the food producer and consumer alike is never a simple one, and in some cases must rest less upon elaborate efforts at ascertaining accurate costs, than upon experience and general observation. Accountants, Civil Servants, or those responsible for the management of a State Department, must in such a case often depend upon the assistance and truthfulness of business-men who have experience in the particular food which is being dealt with. Fairness and accuracy are likely only where a high standard of honesty and public spirit enables business-men to give assistance in the interest of the general public and not in their own. Generally speaking, I think it may be claimed that the country was served during the War by a large number of business-men who subordinated trade interests to the public service. A costings process to ascertain a retail price must be more than guess work. It must take into account the labour, the time and materials, the transport, and the expense of distribution, in detail, of articles of food which may be produced in some remote part of the world and brought thousands of miles oversea to a British table. If, in the effort to reach a just rate or an accurate price, mistakes were made, either in fixing too low or too high a rate, for either the service involved or the article itself, the fact should surprise no one, and it is not in itself a ground for strong complaint.

Twenty months after the end of the War the food problem in Britain is a worse one, so far as it is a problem of prices, than it was during the middle of the War. At that time the trouble lay in supply. But in due course provision was made through the Ministry of Food to fix prices in the case of most articles, and also to arrange a system of distribution and rationing, which in a very large measure securéd equality of quantities

for all classes and gave to the public a confidence in the methods of food distribution which lasted until the War was over. At present, the outlook as to prices is gloomy and every factor which can influence prices is tending to force up the cost of food. The hopes which were held and expressed some months ago that the cost of food would be reduced are being completely destroyed.

Apart from the higher prices which must be met, so far as they are due to increased cost of production and higher wages, all the conditions which have made food so dear could have been better handled if in the earlier stages of the War the Government had regarded supplies of food for the civilian population as a matter only second in importance to the supplies of munitions for the army and navy. The battle front of the war was far more extensive than the lines of trenches, though these were stretched many hundreds of miles. Behind the armies there were immense civilian populations whose requirements had to be kept up to a standard, in which a decline ran the risk of engendering grave discontent and of causing trouble, which in due course might affect the army itself. This condition as it existed in Germany is now known to have gone far to weaken, if not demoralise, the German military forces. There never was very great danger of a similar situation in Britain, but this relief was due to the arrangements made between the Food Controllers of the Allied nations to secure and apportion supplies in their different countries at prices which were fixed in order to give no more than a fair return for labour and services to all who were engaged in varied branches of the food trades. I do not claim that this precise result always followed, but without the intervention of the Food Controllers the ascendancy of the food providers and dealers would have been complete.

Few things are more important to the country now than the question of profiteering, and no greater cause of unrest and industrial trouble exists than the knowledge of profiteering.

It would, however, be well for the public to distinguish between profiteering and high prices, because there are many commodities and foods which we in this country can obtain from abroad only at high prices. We must either pay that price or go without.

Undoubtedly there is in respect of some foods, and in the case of very many other articles of daily use, an overcharge which amounts to flagrant victimisation of the public.

The public should pay for whatever article it wants during a war or while the effects of war last, a price which affords to the

producer or distributor a reasonable return for his services in production or distribution. It should pay no more. Clearly, the public has had to pay prices far higher than should have been charged, and any doubt on that point is set aside by the enormous profits made by trading companies, combines, importers, trusts, and dealers in both food and other commodities. Their balance sheets and their payment of excess profits are all the proof of profiteering which the country needs.

The fundamental cause of profiteering is scarcity. Whenever there is a shortage and demand exceeds the supply, the public is deprived of the usual safeguards which competition in times of plenty always affords. And there is bound to be a shortage for a considerable time yet until food production, trade and commerce are restored to a pre-war level.

These are the facts which make it necessary for a Government to intervene and use the law as a shield for the masses of consumers. The Government did not intervene until the beginning of 1917 when the Food Ministry was established.

Bad as the new Profiteering Law may be, it will be better than nothing, and it will no doubt check profiteers because of the fear of the severe penalties which can now be imposed.

The weakness, however, of the Law is that it mainly deals with grievances after complaints are lodged with the tribunals or committees as to overcharging; and the tribunals will be placed in the position of having to declare what is a reasonable price after an unreasonable one had been charged.

It would be better to reverse that process and first fix prices throughout the different stages and enact a law which would ensure the public against the payment of any price above the one fixed for any article.

The chief defect, therefore, of the new Law is that in practice a complaint must be laid against a profiteer before action is likely to be taken against him. People who deal with particular shopkeepers may complain, but the big traders who deal with food importers, combines, syndicates, companies, trusts or merchants are buying food only to sell it to others and not buying as consumers. They would be disinclined to make any report against people with whom they were trading because they would share in the gains. In short, it is the consumer, as consumer and not as trader, who alone makes complaints, so that in effect the Law will be a punishment of the tradesman and the shopkeeper. The Act probably will afford full means of escape to the big profiteer dealing in very large sums. This grievance of high prices

is so extensive and real that the Government should either let it alone altogether or take it in hand on a big scale as a job to be done thoroughly, if it is to be done with the confidence of the public and for the real protection of the people.

In the daily Press figures have appeared which have been described as proof of profiteering by the State. That is a wrong impression. The Ministry of Food does not make a profit in the sense that it trades in the sale of food in order to secure either for the Ministry or for the State any sort of income or dividend.

Any money which the Ministry may have on its trading account is not a profit for the Government but a reserve for the time being which will be returned to the public in reduced prices and in the transaction of further business for the consumer.

It is not the business of a State department like the Food Ministry to make profit on its work; but it is the business of that Ministry not to involve itself in any loss, and prices are fixed so that there will be a fair return for administration and service but these apart, the charge to the consumer is cost price.

I may here quote an official outline of Labour policy submitted by Mr. G. D. H. Cole in a memorandum to the Labour Party:

"Any scheme of control, in order to be effective, must take the form principally, not of prosecution, but of prevention. Let there be the most stringent penalties ready for profiteers, in those cases in which profiteering occurs, but the main study of the Government should be to prevent profiteering from taking place. This can only be done, not by chivvying the retailer, but by controlling all necessary commodities *at every stage of production and distribution*, from the first raw material to the finished commodity exposed for sale in the retail shop. A lapse of control at any stage in the process is fatal and opens the door wide to the profiteer.

"But it is not enough to control prices at every stage; for the mere fixing of a maximum or controlled price generally means that the price, being fixed so as to afford what is regarded as a 'fair profit' to the least efficient producer, at once puts an enormous profit into the pockets of those who, for one reason or another, are able to produce more cheaply.

"Short of national ownership of industry, there is only one remedy for this form of profiteering. It is not enough to fix prices; it is necessary for the Government to retain effective control at every stage of production and distribution up to the retail sale of the article, paying at each stage to the producer or distri-

butor, a commission based on the service rendered and placed at such a figure as to allow of the payment of a moderate dividend on real paid-up capital and no more. In carrying out this method of control it is also necessary to depart from the policy hitherto frequently pursued by Government departments—that of virtually guaranteeing a continuance of his profit to every kind of middleman, however unnecessary he may be to the efficient working of the industry. Unnecessary middlemen, and with them unnecessary profits, must be squeezed out of the industry.

"The policy really required for dealing with profiteering is, then, not a policy of prosecuting small grocers for petty offences before incompetent Tribunals, which will in most cases prove quite unequal to the task of tracing excessive profits home to those who have really received them. It is that of instituting a really effective system of control based upon allowing to each necessary class of producer or distributor, reasonable pay and no more. Prosecution may be spectacular, and have in it the elements of a check in many cases but is most unlikely to have any great effect in reducing the general level of prices. The fault lies with the present methods of control, and it is only when these have been remedied and extended so as to make high profits impossible at any stage that prosecution will be a useful secondary weapon against the big manufacturers and traders as well as against the retailers."

Bad as the position in this country is, it has always been better than in France or Italy. In no other country has so much been done in the matter of equalising supplies and regulating prices in the public interests as in this country; but that is no argument for staying our hand just where further and more energetic movement is needed. The effects on food supplies and on prices will not completely disappear for a year or two. It was folly for the Government to regard the Food Ministry as having only a useful period of existence for a few months after the war. The Food Controller, since the war ended, has had work of the highest national importance to perform under the greatest disadvantages. A little money has perhaps been saved to the State by a gradual winding-up of the machinery of the Ministry and by the disbanding of able men and women who served it. The little which has been saved is insignificant when compared with the enormous losses to the public because of high prices and in the tendency to profiteer during the past year.

There is no more important branch of Government work which Ministers could take in hand than this work of regulating

the supplies and prices of food. To do it more effectively might mean a more elaborate staff and a larger department than are now at the disposal of the Food Controller. The cost would be as sound a piece of public economy as any the Government would show. If there is an alternative to the method which the Food Minister has followed, let someone proclaim it. That method has been to ascertain as minutely as possible the cost of producing, importing and distributing articles of food and fixing the price to the consumer at an amount which would cover only a reasonable rate of profit for the persons who by their service met the needs of the consumer. Some few may gain unduly and others may not receive for their service a fair reward; but as a general plan the one which has been followed has not been improved upon by any other system yet suggested.

Shipping and transit facilities are a material factor in the price of food, and shipping and transit in turn depend upon steady and regular work by builders, repairers, railway workers, carters, and others. Transit shortcomings do not, however, account for the high prices of some articles of food which are as plentiful now as they were before the War. Plentiful supplies should mean cheapness, but in the case of articles like fish, vegetables, and some other foods, abundance has not pulled down the price. Allowing for all reasonable additions for the cost of labour and the cost of material, there is no sufficient explanation of the continued dearness of articles which are in no way scarce. Great quantities of fish could be used for human food by arrangements being made for exceptional catches at the different ports being taken in hand by agents of the Food Ministry, and sent as speedily as possible to the great centres of population. The Government has sold fish on a small scale in its National Kitchens and Restaurants; it should sell it cheap on a large scale if that step is needed to ensure reasonable prices to the consumer.

Consumers have suffered so much from speculation and cornering that even more extreme penalties would be welcomed if measures were taken to apply them. The Act which was passed in the summer of 1918, enabling courts not only to impose a fine or imprisonment, but to require an offender to pay back double the amount of any profit illegally secured was a good one. The Act might be more effectively used, and courts of law should have their attention drawn to their unused powers. The subject is not one either for timidity or for a vain endeavour to prevent profiteering by threats of what will befall them if some profiteers do not mend their ways.

Under normal conditions and with good supplies of food, the ordinary trade agencies would solve the problem of food supplies better than any Government could possibly solve that problem under War conditions and with a state of serious shortage. All the same, the time to control and restrain Trusts, Companies, Syndicates, and similar combinations of interests in relation to food supplies is all the time and not merely during War time. This control can take effect gradually to the advantage of the millions of consumers, especially if Governments would co-operate to make it effective and world-wide. Just as a state of scarcity is the special opportunity of the Profiteer, that opportunity is increased by the rivalry of Governments, who could co-operate greatly to the advantage of the people whom they represent.

A policy in relation to food during a time of scarcity, whether resulting from War or other conditions, should be thorough and comprehensive if the work is undertaken at all. It should proceed on the lines of the Government purchase, control, and distribution of supplies. Purchases would have to be on a large scale, and so far as price was concerned the price would be governed by a fixed maximum above which it would be illegal to sell, and under conditions which would enable prices to go down as a state of abundance or the good fortune of satisfactory harvests produced good results. Distribution could take effect through most of the existing agencies and channels of trade on lines which would yield to all who served a reasonable remuneration for their work. There should be no place for the speculator, or unnecessary middleman, or for those who do no more than interfere with the flow of foods by stepping in at points favourable to themselves merely to purchase commodities in order to sell them at a far higher rate without increasing in the slightest degree the value of the articles or facilitating their movement to places where they are required. Effective supervision of supplies should be maintained both at home and abroad, and power should be wielded to secure complete fairness of distribution according to the quantities needed in the different areas. Much could be done to secure the economical supply of food by more thorough co-operation between the local authorities and the central Ministry with regard to Kitchens, Canteens, Cafés, and Restaurants, run in the public interests, but worked and maintained as self-supporting establishments.

The purchase and distribution of food is a task which involves each year a turn-over of hundreds of millions of pounds, and on this sum there need only be the very slightest fraction of a charge

in order to meet any expense which a State would incur. In other words, the work could be done by the State without putting any burden upon the State. There would be no increased cost to the consumer, but on the contrary a less cost to the consumer from the fact that, instead of paying to other persons big profits for supplying the public with food, only a small but yet a fair payment would be made as a payment to State servants for doing the same thing. While the effects of war remain in the sphere of food and prices the policy which the War required should not be abandoned.

J. R. CLYNES

CO-OPERATIVE SOCIETIES AND INCOME TAX

THE proposals of the Royal Commission on the income tax in regard to the assessment of co-operative societies—from which, along with others of my colleagues, I felt obliged to dissent—raise issues which are interesting theoretically as well as practically. In the following paragraphs I propose briefly to discuss some of these.

Popular discussion of this matter always starts with the tacit assumption that the proper object on which to assess an income tax is money income or money profit. The question to be decided is what, if any, part of the receipts of a co-operative society are, in fact, money profit.

Much the most important part of this question concerns the *status* of the net proceeds of transactions of sale between co-operative societies and their own members. Representatives of private traders maintain that the whole of these net proceeds constitute a (money) profit: the majority of the Royal Commission on the Income Tax maintain that that part of them which is retained by the societies and not distributed in the form of dividends on purchases constitutes a profit; and the representatives of the co-operative societies maintain that no part of them constitutes a profit.

Those who contend that even that part of the proceeds of mutual trade which is returned to members as dividends on purchases constitutes a profit are up against the awkward fact that co-operative societies have the power, if they choose, instead of selling to their members at market prices and returning to them a dividend on purchases, to sell to them at prices reduced by an amount nearly equivalent to the "divis." and to pay no "divis." The existence of this power not only makes it plain that, from the point of view of the revenue, taxation of "divis." would be a futile proceeding, but it also puts in clear light the essential nature of those "divis." They are, in essence, not a profit in any sense, but a refund made from an overcharge. It has, indeed, been argued in some quarters that, though this analysis is valid as regards an association of neighbours clubbing together,

say; for the purpose of jointly providing themselves with coal, it is destroyed, for the co-operative societies of to-day, by the fact that they sell to their members a great number of different things, in such wise that the dividend on purchases received by a member, who buys, say, tea only, is not simply a return on the excess of what he paid for his tea above the cost of the tea, but is dependent on the aggregate excess of what all the members have paid for all the things bought by them above the cost of all these things. But this fact is not really relevant. The aggregate sum distributed to members is still a refund and not a profit. The basis on which they choose to divide it is a matter for them to determine. It has no bearing on the nature of the thing to be divided. It would seem to follow that the income tax law cannot properly treat the surplus that results from transactions with their own members, even to the most highly elaborated forms of co-operative societies, as a taxable profit.

The majority of the Royal Commission on the Income Tax, while agreeing that the part of the proceeds of mutual trading which is distributed in "divis." is not profit, claim that the (much smaller) part which is retained by the societies and placed to reserve is profit. They base their view upon a distinction between co-operative societies, as separate legal entities, and their members as individuals. The societies, they say, after payment of their divdends on purchases, which are in the nature of discounts, make out of the balance of their net receipts an ordinary money profit, which, just like any other money profit, is properly taxable. Now, no doubt for the purpose of a corporation tax, this contention would be valid. But for the purpose of income tax companies and corporations are not, *as* companies and corporations, liable to tax; they are merely channels through which, with as much accuracy as practical conditions allow, the taxation due from their members is collected. Hence, if the money put to reserve by co-operative societies is taxable profit at all, it must be taxable profit of the members. But to decide that the proceeds of mutual trade are not profits from the income tax point of view when they are distributed in dividends on purchases, and are profits when they are not so distributed, is to make the nature of these proceeds depend, not on their origin—which is clearly the proper test—but on their destination, which is no test at all. This contention of the majority of the Royal Commissioners seems to me to break down completely before this objection.

With the main issue thus cleared out of the way, subsidiary

matters readily fall into place. There is no dispute that the net proceeds of a co-operative society's trade with non-members is a money profit and properly taxable. The income they receive from securities held by them is no less clearly a money profit. These two items, in short, stand on exactly the same footing as the virtual income from their Schedule A property, which (alone) is at present taxed under the English law. It is proper that all these items alike should be brought under assessment. If this is done, however, it is plainly not proper that share interest in the hands of co-operative societies' members should also be taxed without any set-off for the prior taxation of the sources out of which this share-interest is, at least in part, paid. If income tax were an ungraduated tax, a simple solution of the difficulty could be found in assessing the three items which have been enumerated in the hands of the societies and exempting share-interest altogether. But, under the actual income tax, since taxation at source is levied at the standard rate and the great bulk of co-operators are either exempt from income tax altogether or liable at a low effective rate, this plan would mean taxing them more heavily than is right. To tax share-interest alone, at the rates appropriate to the several members, and to exempt the above three items in the hands of the societies might, on the other hand, involve taxing co-operators less than is right; because a portion of the items of profit which I have distinguished may find its way, not into share-interest, but into the "divis." The only completely fair solution would be to tax these items in the hands of the societies at the standard rate and allow to the shareholders—who are, of course, the same people as the members—a full set-off on the taxation of their shares. Since, however, as has been pointed out above, a great many shareholders in co-operative societies are either exempt or assessable at a low effective rate, and so pay no taxation on their share interest from which a set-off can be allowed, to carry out this arrangement in practice would be extremely difficult. Moreover, the accounts of the retail societies which, of course, constitute far and away the most important part of British co-operation, show that in 1918 the aggregate value of investments, whether in the form of house-property or of securities, amounted to some £27,000,000, while the interest on the share-capital of members was £2,200,000. The interest paid to members may, therefore, reasonably be held to cover the actual and virtual income from the societies' investments. As the profit from non-members' trade is known to be very small, it follows that there can in fact be scarcely any properly taxable income left

over when share-interest paid to members has been brought under assessment. There is a theoretical possibility of unduly favourable treatment under the present law. But in fact it is probable that, when account is taken both of the Schedule A assessment, and of the assessment of share-interest, co-operators are taxed too much. If the Schedule A assessment were withdrawn, there would probably be a slightly closer approximation to ideal justice; but this assessment does not amount to much, and it would seem that substantial justice is already attained under the present law.

On the plane of popular argumentation these conclusions might be taken to settle the practical issue. But the economist will not be satisfied until he has delved more deeply. We have proceeded so far on the assumption that the proper object on which to assess an income tax is money income or money profit, and on that basis we have found the co-operators' claim that no part of the proceeds of their mutual trading is properly amenable to income tax to be justified. But we have still to consider whether that basis itself is sound. We note, to begin with, that the term "income" may be given either a subjective reference to a man's internal satisfaction or an *objective* reference to his external environment. Plainly, for purposes of taxation, the objective reference is the only possible one. But objective income is itself capable of sub-division. On the one side, there is a man's *real* income of goods and services; on the other side, his nominal income of money. In large part these two things correspond, money income being the representative of, and the payment for, real income. But this correspondence is not complete. Thus, one man devotes his capital and labour to making cotton yarn; he sells the yarn for a £1,000, and buys with this food and clothing for his family; another man devotes an equivalent amount of capital and labour to making food and clothing directly. The real income of these two men may be exactly the same; but the first of them has a money income of £1,000, and the second has no money income at all. As a matter of general principle, there can be no question that, if income is to be taken as the basis of any form of taxation, real and not nominal, or money, income is the proper thing to take. Whether this real income is obtained directly or through the mediation of money is an irrelevant accident. In a perfect world income tax would be assessed impartially upon all parts of real income, whether or not there were any money income corresponding to them.

In the actual world this arrangement is unfortunately not prac-

ticable. The services, for example, that the different members of a family render to one another without payment cannot be brought into any income tax return; nor—without far more trouble than it is worth—can the services that a man gets from his furniture or his clothes. Under the English income tax, therefore, for reasons of administrative practicability, those portions of real income which are not represented in money are, in the main, left outside the scope of the tax. An exception to this general rule is made in respect of houses and lands occupied by their owners. Though no actual money rent is received, owners are assessed under Schedule A on the rent which it is assumed would have been received if their property had been let to somebody else. The Royal Commission on the Income Tax have suggested in their Report that regular payments received in the form of board and lodging might also properly be brought within the scope of the tax.

It is possible to imagine a type of co-operative society in which all the members should club together in a self-sufficing community, growing corn, making bread, making clothes, digging out coal and building houses, and sharing the proceeds of their joint work among themselves without any money payment whatever being made. Conceivably, the whole nation might organise itself into an immense mutual association on this pattern, with the result that, though its real income remained as large as it is now, there would be no money income at all. If this happened, it is evident that an income tax of the British type would no longer be an effective instrument for raising revenue. Its efficacy and its (relative) fairness depends upon the condition that those parts of real income, which are omitted from its scope because they are not represented by, or easily convertible into, money income, constitute only a small part of the whole. If this condition ceases to be satisfied, the whole form and machinery of the tax may need to be modified.

The great development of the co-operative movement in this country is thought by some to involve a withdrawal from the pressure of the income tax of a large amount of real income in the way that has just been indicated. Impressed by the great annual turnover shown by co-operative societies, they insist that all this trade *must* yield a substantial real profit of the same sort as that obtained by private trading, and that this profit ought somehow to be brought under assessment. They recognise, of course, that, in so far as the societies are composed of small men, some of the profit belongs to persons who are exempt from income tax.

But, they argue, this is no sufficient reason for allowing the other part of it, which belongs to persons who are not exempt, to escape its fair share of taxation. In short, the contention is, the co-operative form of business organisation is responsible for creating so large a slice of real income not represented in money income that fairness requires some special rule to be made for rendering it taxable, just as a special rule has been made for rendering taxable the real income that owners receive from the ownership of lands and houses occupied by themselves.

I have already conceded that co-operative societies *might* be so organised as to make this argument a valid one. We have now to consider in what way they are organised in fact. On the side of labour, in the widest sense, there are paid managers, a paid staff and paid work-people. There is also an unpaid committee, corresponding to the paid directorate of a joint stock company. The work of this committee is the only item on the side of labour in which an income of real service is embodied without a money counterpart. Plainly it can only amount to a very trifling proportion of the whole. On the side of capital the contention that the co-operative form of business organisation enables a considerable amount of real income to be created which is not represented in money is more plausible. The services rendered by the share-capital of members already has a money representative—though possibly since the rise in general interest-rates not an entirely adequate one—in the interest that is paid on it. But, so far as capital is obtained by contributions to reserve funds and by the retention on the part of the societies of monies which are to become "divis." during the interval between the purchases by members of goods for cash and the distribution of the "divis.," and so far as this capital is employed in the societies' own business, with the result of lowering prices or increasing the rate of "divi.," there is no taxable money representative of the real services that it renders. Thus, we may imagine a society buying up a mill out of its accumulated reserves. If this mill had previously been earning £10,000 and were run now with exactly equal efficiency, no earnings of capital would appear as money profit, but the whole £10,000's worth of real income would remain, and would take the form either of lower prices or of larger dividends on purchases. The reserve fund of the whole body of British Retail Co-operative Societies amounted in 1918 to a little over £4,000,000. If we take the distribution of "divis." to come to 16 millions a year, distributed quarterly, the average amount of capital held by the society in respect of

"divis." will be 2 millions. If we reckon the real rate of return on the 6 millions capital composed of these two sums to be 10 per cent., we have some £600,000 a year of real income not represented in money income. This, belonging as it does to a body of nearly 4,000,000 persons, amounts to about 3*s*. per head per annum. On the (optimistic) assumption that co-operators on the average are liable to income tax at one-half the standard rate, the aggregate revenue due on this £600,000 would be £90,000. In fact, it is probably a much smaller sum.

If it were thought that the sum involved were important enough to warrant a departure from the general income tax rule of confining taxation to money income, only one method of striking the items of real income which we have found to exist among co-operators seems to be practicable. They cannot be got at directly. But a part of them might be got at indirectly by the device of subjecting to income tax all monies placed to reserve by co-operative societies. Being unable to strike effectively the income which these resources yield, we might strike instead the contributions out of which the assets destined to yield that income are created. Of course, this would imply the exemption from Schedule A taxation of all property purchased out of reserves accumulated after the new arrangement came into force; and also the adoption of some device—presumably by way of a set-off to members in their capacity of shareholders—to provide against a charge at the full standard rate being levied on persons most of whom are not liable to that rate.

It must be clearly understood that this arrangement would not put co-operative societies in the same position as other people as regards income tax, but, on the contrary, would involve the introduction of a new discriminating method of assessment specially directed against them. This could only be justified if it were shown that the loss of revenue which results from treating them in the same way as all other taxpayers is large relatively to the loss that results from assessing these others on their money income instead of on their real income. From what has been said it is apparent that, in fact, the loss is not only relatively, but absolutely, of quite trifling amount. In these circumstances there is, in my judgment, no sufficient warrant for subjecting co-operative societies to a rule of assessment different from that applied to the general body of the community.

A. C. PIGOU

AN OFFICIAL AMERICAN STUDY OF INDUSTRIAL FATIGUE

In the September number of The Economic Journal for 1914 an article appeared by Mr. J. W. Ramsbottom, under the title, "Suggestions for an Enquiry into Industrial Fatigue." Mr. Ramsbottom's suggestions were acted upon and have borne fruit, but the modesty of his title thoroughly indicates the status of the subject at that time. Apart from citing such classic experiments as Dr. Abbé's at Jena and Sir William Mather's at Salford, it was impossible then to give much positive information. In the era before the British Association reports and those of Professor Stanley Kent, and before the memoranda of the Health of Munition Workers Committee, the information did not exist. More than that, most manufacturers and even some economists were inclined to deny that there was anything about which to give the information.

This attitude was clearly exhibited at the meeting of the British Association at Newcastle in 1916, when the "Committee on Fatigue from the Economic Standpoint" presented their second report. On that occasion Dr. Hunter, a shipowner, expressed his feelings in a speech that next morning's newspapers entitled "breezy." I quote from the *Morning Post* of September 11th, 1916 :—

> "Dr. Hunter did not think that the question of fatigue was of great importance in connection with ship-building in the yards of Messrs. Swan, Hunter and Co. . . . It was the men who took drink . . . who found that they were not able to work long hours, who complained of over-fatigue. If men took a more intelligent interest in their work and worked harder they would feel less fatigue. The effort to work slowly was really very fatiguing. (Loud laughter.) There was a great deal of 'coddling' going on and it diverted attention from real evils. People should pay attention to these evils and cease coddling and trying to invent. (Laughter.) He had worked harder in his time than any of his workmen, and had not suffered in health. (Hear! hear!)."

Outbursts such as these would have been unimportant if they had not been characteristic of an influential body of opinion. Unfortunately for this country, these views were reflected in the

original policy of the British War Office for stimulating the production of munitions, and until the findings of the new research were brought to bear, the longer the hours worked, the greater was considered the efficiency.

The American War Department adopted a radically different course from the very outset. The feelings of the average American business man, it is true, were not very different from those exhibited above. Though there is a distinct myth growing up in England as to the numerous rest periods granted to American factory workers, it must be stated frankly, with all due respect to the high quarters where the idea is now lodged,[1] that neither scientific management nor any other American methods have established any material difference between the American and British employer-psychology. Fatigue, indeed, if one of Mr. Gantt's works, recently reviewed in these pages,[2] is any criterion, is one of scientific management's greatest blind spots.

It chanced, however, that Mr. Baker was the Secretary of War, and Mr. Baker is President of the National Consumers' League, an organisation that has stood consistently for decent "labour standards." At the entrance of America into the war, labour standards, and particularly the hours of work in munition factories, were accordingly strictly maintained. At the same time, though profiting by the experience of England which was thoroughly taken to heart, the Federal Government, through the Public Health Service, initiated and supported an investigation of its own. Under a committee, of which Dr. J. W. Schereschewsky of the Public Health Service, Dr. Edsall, now Dean of the Harvard Medical School, and Miss Josephine Goldmark were members, and Dr. Frederic Lee was secretary, a body of investigators was sent into the field in July, 1917. The first report of their labours—running over two hundred pages and abounding in diagrams—has just been published in Washington as Public Health Bulletin No. 106.[3]

NEW METHODS.

Owing to the American policy of maintaining "labour standards," no chance was given the investigators of disclosing such sensational inefficiencies as Dr. Vernon did in his memoranda

[1] Final Report Health of Munition Workers Committee, Section VI. 178.

[2] ECONOMIC JOURNAL, September, 1916.

[3] "Studies in Industrial Physiology: Fatigue in Relation to Working Capacity. 1. Comparison of an Eight-Hour Plant and a Ten-Hour Plant." Report by Josephine Goldmark and Mary D. Hopkins on an investigation by Philip Sargant Florence and Associates under the general direction of Frederic S. Lee.

for the British Health of Munition Workers' Committee. Instead of being able to compare the efficiency of the same factory before and after reduction of hours, the Americans had to devise means to compare the net effect of the number of hours worked in altogether different factories. Two factories were picked, both engaged in metal working and containing roughly the same types of operation, and both of equal technical efficiency. One, however, employing some 36,000 men, was working on two day-shifts each of eight hours' duration; the other, employing some 13,000 persons, worked from 7 a.m. to 12 and from 1 to 6 p.m.—a ten-hour day. A method was then found of comparing each factory with its own best showing and contrasting the shortcoming of each from its own standard.

The study was based on the now familiar hourly efficiency curves, a method first used specifically to discover fatigue in the 1915 report of the British Association Committee. The output of groups of workers and the accidents of the whole factory were counted for each working hour of the day over a considerable period by the investigators on the spot; a specific efficiency for each working hour could thus be tabulated and plotted as a curve. To obtain an accident curve for the factory as a whole presents little difficulty, but a novelty in the American investigation is the attempt to approximate an hourly output curve for the factory as a whole, instead of confining output studies to isolated groups of workers all engaged on the same operation.

The principle adopted was one familiar enough to makers of index numbers for measuring the cost of living. The average hourly output curves on each operation where a group was studied were reduced to a common level, the maximum output shown by any one full hour when the whole group was averaged being rated as a 100, and the average output of the other hours expressed as percentages of it. The percentages for the same hour in each operation were then averaged [1] and a composite hourly curve obtained.

The choice of the maximum hour as 100 rather than the average hourly rate, is a distinct departure from the usual practice. It could not be justified unless it were shown that such a maximum is never an extreme. The investigators tested this point and found that the hourly outputs tapered off towards the minimum which was a long way down, but were bunched up at

[1] The average hourly curve in the eight-hour plant is an average of the efficiency on both day shifts, *e.g.* the output of the third hour of the afternoon shift would be averaged with that of the third hour of the morning shift.

the maximum. In other words, the frequency distribution was not symmetrical; men could work for any hour as slowly as they liked, but they could not work faster than a certain rate. Once justified statistically, the maximum as a base obviously has great advantages in presentation. It forms a standard of possible efficiency to which every output showing can be measured up. Each hour's accidents were similarly expressed as percentages of the best hourly showing (*i.e.*, the hour of least risk).

Altogether output from some fifteen different operations were tabulated in the ten-hour plant and twenty-two operations in the eight-hour, an attempt being made to choose operations of the most diverse nature. In the ten-hour plant the work studied ran all the way from hard "planishing" of fuse-parts (something between filing and polishing) *viâ* turning fuse-bodies on lathes and stamping by footpress to delicate hand assembly and soldering. Similarly in the eight-hour plant these dexterous operations were studied side by side with the hard labour of excavating and hammering and with machine work such as grinding and cutting on lathes.

The next question was how to compose these various operations so as to form a picture truly representative of the whole industry. In what proportions were muscular labour, hand work and machine work actually distributed in these factories?

Based on surveys in analogous factories, it was estimated (and this estimate was later confirmed by direct count) that in the eight-hour factory half the productive force was employed at machine work, one-quarter at muscular labour, and one-quarter on dexterous operations; and, further, that half the machine workers were "operating" lathes and other machines requiring attendance of the same type. Accordingly the hourly "index numbers" for each operation studied were averaged in four groups separately, muscular work, dexterous work, lathe work and miscellaneous machine work—the latter including the furnace-tending type.

This grouping of items according to their importance in the factory is analogous to the weighting of index numbers of commodity prices according to the total consumption of those commodities found in workmen's family budgets. In both cases a complete and accurately balanced picture is given of facts as a whole as we meet them in actual life.

It should be noticed that the separate operations that were grouped together did not all have the maximum output in the same hour; hence in the average curve for the group no hour

will appear at 100. One hundred remains a "limit of possible efficiency" that is always approximated, but only actually attained when all operations in the group have their maximum output at the same hour.

In order to eliminate all chance that dissimilarity in type of work would obscure the effect of different lengths of hours pure and simple, operations at the ten-hour plant were grouped in precisely the same way as in the eight-hour plant, though, as a matter of fact, such grouping did not represent exactly the actual distribution existing there.[1]

The investigators now had at their command facts capable of throwing light in a number of different directions.

1. What was the shape of (*a*) the hourly output curve, (*b*) the hourly accident curve in each factory as a whole? Did the later hours of the day show any appreciable fall in output or rise in accidents?

2. How did the two factories compare in the maintenance of efficiency? How close did each of them keep to the maximum of possible efficiency in output and the minimum of unavoidable accidents?

3. How far is the type of work a factor in determining the shape of the hourly curves, and how far does it affect the fall from possible efficiency in output and the rise from the minimum accident rate? Is there any consistent difference noticeable in the showing from the different groups of operations?

Hours and Output.

In comparing the fall of each factory below its own maximum possible efficiency the ten-hour factory contrasts badly with the eight-hour scheme. Though the best hour in the case of each factory is within 3 per cent. of this possible maximum, the ten-hour factory has a long " tail " ; eight of its ten hours fail to reach within 6 per cent. of the possible maximum, whereas six of the eight-hour factory's hours get above that. On the average the hourly outputs at the ten-hour factory fall 9·8 per cent. below possible efficiency, those at the eight-hour factory only 6 per cent. below. This means that, by working eight hours, output is considerably better maintained throughout the day, and that each hour does its bit in wiping off capital expenses and the continuous overhead charges, such as the cost of heating, lighting, and driving the shafting and salaries paid on a time-rate.

In both factories, if we except the first and second hours when

[1] See footnote below, page 169.

workers are probably still getting into practice, the output of the later hours of day was less than in the earlier hours; but in the eight-hour factory the fall was considerably less than in the ten-hour factory. In spite of the very low output in the first hour of the first spell, the output of the whole second spell in the ten-hour plant was 3·4 per cent. of possible efficiency below that of the whole of the first spell, while in the eight-hour factory this fall was only 0·9 per cent. The last hour of the day had in both factories the poorest output, but in the eight-hour scheme it was only 10·2 per cent. below possible efficiency, while under the ten-hour scheme the fall was 20·9 per cent.

An average output curve from five operations on a full twelve-hour shift was also obtained, the night-work at the "ten-hour" factory lasting from 6.20 p.m. to 6.40 a.m., with only a twenty minutes' break at midnight. The results entirely confirm the *a fortiori* argument that a little deduction would indicate. Just as the output of a ten-hour day is less stable than that of an eight-hour shift, so the twelve-hour night is less stable than the ten-hour day. In fact, the results in the last hours of this protracted shift are sensational. While the average output for all the hours is 18·3 per cent. below possible efficiency, the output of the last hour but one is 39 per cent. below this standard, and the output of the last forty minutes is practically nil. So low did efficiency sink in the early hours of the morning that the investigators furnish a table setting forth for one of the departments the number of men asleep every quarter of an hour!

These records of low output were partly due to a slower rate of working and partly to a less close application to work. Further light is thrown on the latter element in records of the time that is voluntarily "lost" by the worker in the course of his work.

There is first a tardiness in starting the spell, less noticeable at the eight-hour plant, but running into heavy expense at the ten-hour factory. Taking 90 per cent. of the average power consumption as the standard, machine departments were twelve minutes on the average getting started at the ten-hour plant, and seven minutes at the eight-hour factory. A corresponding promptness to "get quit" at the end of the day resulted in the 90 per cent. standard failing six and a quarter minutes before time at the eight-hour factory, and twenty-one and a half minutes before time at the ten-hour factory. Direct observations made on some of the groups while their hourly output was counted showed still more remarkable differences between the two factories in the time lost in the middle of the spells.

Hours and Accidents.

It has by no means been a settled point so far whether the rate of accidents can be taken as a measure of human working capacity, and hence whether a rise in accident while the hours of work proceed is a measure of fatigue. In fact, in the most recent memorandum of the British Health of Munition Workers' Committee[1] fatigue was allowed a *rôle* in increasing the rate of accidents only where women were subjected to excessively long hours. The Americans enter very carefully into Dr. Vernon's argument as given in this memorandum, and in tables and special appendices they subject their own figures to every test called for by Dr. Vernon's theories. Yet, when all is said and done, fatigue appears as of cardinal importance—even in the case of men working so short a time as eight hours.

Dr. Vernon's main point is that the number of accidents are dependent on the amount (*i.e.*, speed) of output, and that to eliminate this factor the ratio of the accidents to the output must be found every hour. This point was thoroughly realised by the British Association Committee in their report for 1915,[2] but it was not till later that the Committee obtained output data sufficiently extensive for correlation with the accident material. In the American report very complete output data are supplied almost automatically by the composite factory curves that we have been discussing.[3] This output data, in fact, is much more representative than that offered by Dr. Vernon, since he takes the power consumption as a proxy for the total output, whereas actually power consumption *will only represent the output from the power-driven machinery.*

The American investigators were thus able to correct the curve of accidents with the quantity of output curve for the whole factory, and they proceed to draw the hourly "accident risk per output" on this basis for both factories. The superiority in efficiency of the eight-hour system over the ten-hour is again evident, as also the superiority of the earlier hours of the day

[1] Memorandum No. 21—H. M. Vernon, M.D.: "An Investigation of the Factors Concerned in the Causation of Industrial Accidents."

[2] Page 23 ff.

[3] Some modification had to be introduced in the case of the ten-hour plant, since what was required here was the actual output from the factory with the types of operations distributed according to the facts at that plant, not as they were distributed at the eight-hour plant. By direct census of all factory operations it was found that the ten-hour factory contained as a whole a somewhat smaller proportion of machine work; in fact that machine work divided the field equally with muscular and dexterous handwork, each type engaging about a third of the employees.

over the later. Representing the hour of least risk as 100 (it happens to be the first hour of the day in all cases), the eight-hour plant throughout the day[1] averages some 20 per cent. higher than this possible minimum risk; the ten-hour plant averages some 29 per cent. higher. In the second spell the risk is 5·6 per cent. greater than in the first spell in the eight-hour plant; but in the ten-hour plant the afternoon risk is 10·95 per cent. greater. In the last hour of the day the accident risk per output rises 17·4 per cent. above minimum at the eight-hour plant, but 57 per cent. above minimum on the ten-hour scheme.

The Type of Work Factor.

Great importance is attached by the American investigators to their demonstration of the different course run by fatigue when different kinds of factory work are engaged in.

It has been recognised ever since the 1915 report of the British Association Committee that the shape of the hourly output curve might be entirely different according to the class of operation from which the records were drawn, and Dr. Vernon has shown the different effects of a reduction of hours on "heavy," "medium" and "light" operations.

The British Association Committee, however, had not a very large sweep of facts on which to base conclusions, and Dr. Vernon's analysis of types of work are obviously somewhat crude. What the Amercan investigators have done is to adopt the four-fold classification of factory work as Muscular Handwork, Dexterous Handwork, Lathe Machine-work and Miscellaneous Machine-work—somewhat on the lines laid down in the British Association report—and at the same time have collected together sufficient examples of the curve of output from operations within each of these types to be able to draw differential work curves.

But they have not stopped at output. The Bulletin under review actually gives accident curves in the ten-hour plant for three of the types of work differentiated above, each of these accident curves being corrected with the output curves from the same type of work, just as the curves for the whole factory were corrected.

The result from output and accident tests are in unison. The greatest fall in output during the day, and the greatest rise in the accident ratio occurs on muscular work, and the least fall in

[1] The figures for the first hour of the second spell had to be omitted in the eight-hour plant, owing to the uncertainty in some departments how far the lunch break extended.

output and the least rise in the accident ratio in the machine work.

Comparing the second spell output with that of the first, there is quite a remarkable agreement on the relative standing of the four types in both the factories. In the eight-hour plant lathe machine-work shows on the average a rise of 2 per cent. in the output of the second spell, miscellaneous machine-work a rise of 1 per cent., dexterous handwork a fall of 3 per cent., and muscular work a fall of 5 per cent. In the ten-hour plant the order is precisely the same. Lathe machine-work shows the same 2 per cent. rise in the second spell output as compared with that of the first; in miscellaneous machine-work the output of the spells is the same; in dexterous handwork the second spell is down 6 per cent.; and in muscular handwork it is down 10 per cent. In spite of some exceptions, there is also a striking uniformity in the output curves of the individual operations within each type.

The tale told by the accident curves that were secured at the ten-hour plant agrees remarkably with the output data. While the machine-work (without distinction of lathes and other types) shows a rise in the second spell over the first of 11·5 per cent., on the dexterous work this rise is 13·2 per cent., and on muscular work it is 24·3 per cent. Taking the average of the accident ratios for all the hours of the day, it is 31·0 per cent above the first (minimum risk) hour of the day on machine-work, 34·5 per cent. above in dexterous work, and 81·4 per cent. above in muscular work.

Does this evidence from the output and accident records of a factory mean that machine-work is comparatively speaking not fatiguing? The evidence of the output even indicates that machine-work is not fatiguing at all, speaking absolutely. *Primâ facie* this seems improbable. The present writer reported to the British Health of Munition Workers' Committee certain monotonous operations where "girls tend to drop straight off to sleep immediately their machine breaks down and they need no longer work. They would appear, indeed, to be continually on the verge of sleep, and yet the output is maintained at the day-shift rate."[1] This suggests that some momentum may be sustaining output in spite of the worker's state of fatigue. Such a momentum would be given by rhythm, and it was to rhythm the Americans turned for an explanation of the inflexible output curves from machine-work.

[1] Interim Report, page 32.

By means of an ingenious automatic "rhythmometer," invented by Dr. A. H. Ryan, one of the investigators, the exact time of certain of the workers' motions were recorded by electrical contacts on a kynograph or recording drum. A series of records were thus taken of the time relations in operating lathes, and a very extreme regularity of repetition was discovered as compared with the time relations in footpress operations of the muscular type. This repetition of the same motion at regular intervals is the primary feature of rhythm, so that rhythm seemed to be of great importance in precisely those operations where the hourly curve was least flexible. Whether it was that rhythm actually prevented fatigue setting in, or that it simply prevented what fatigue there was from being shown in the output, is still an open question. Some physiological tests that were made favour the latter theory, but there is no inherent reason why both theories should not be true in part.

Rest-Period Experiments.

The British Health of Munition Workers' Committee in their final report quote Dr. Vernon to the effect that five-hour spells of work are too long, and that the best method of avoiding them "is to stop work for a quarter of an hour in the middle of each spell." Actual results of such breaks Dr. Vernon did not apparently obtain except either indirectly or in conjunction with the effect of other changes, but the deficiency is made good by the American investigators, and their results entirely confirm Dr. Vernon's opinion.

The ten-hour plant had just such five-hour spells as Dr. Vernon condemns, and early in 1918 the management was induced to give a ten-minute recess period in each spell in certain departments. These were introduced as soon as a series of control observations were completed to find the rate of output *before* the change. After the change was made observations were continued on the same set of workers for several weeks.

In the first few weeks of the innovation, if we consider only such operations as employed more than two persons, we find an average rise in total daily output for the different operations of from 0·86 per cent. to 7·9 per cent. This means that the increased efficiency entirely compensated for the twenty minutes lost during the day, and secured some benefit in addition. In one operation only was there a fall. In the largest group—fourteen women painting a solder mixture to the back of small army coat buttons—the rise was 1·96 per cent. In a group of men

on three operations, buffing and colouring safety razor parts on a revolving wheel, the rises were 0·86 per cent., 1·1 per cent., and 1·1 per cent., and this in spite of such a strong opposition on the part of the men to "being coddled" that recess periods had soon to be abandoned in their case.

A second period of observation of the recess periods was obtained in some of the operations, when larger increases were registered in the output. The one operation where a fall had been found before, now showed a rise in output over the control period of 7·1 per cent. The other operations varied in rise from 3·26 per cent. to 18·3 per cent. In one soldering operation a third period of observation was possible, when the rise over the control period was 25·9 per cent. It should be stated that in all cases the workers were thoroughly experienced and that the date of their first working at the operation studied is tabulated. The fact of learning cannot, therefore, account for the rise in output.

Recess periods were also introduced at the eight-hour factory, but met with little success in increasing output. Since the departments given recesses here contained machine operations where the state of the human working capacity is less easily read in the output than is the case with pure handwork, the results may not be significant. In so far as they do indicate anything to our purpose, it is that continuous four-hour spells are harmless where continuous five-hour spells are not.

Measuring Labour Unrest.

The middle-class conception of labour unrest is of some sinister infection, elusive and intangible. This, however, has not deterred the new American *personnel* expert from trying to measure certain phases of unrest in exact numerical terms. For instance, the labour turnover—by which is meant the flow of wage-earners in and out of any given factory's employment—is now definitely reduced to percentages of the total working force. The only comparable study in England is Captain Greenwood's memorandum on "Wastage of Labour" published by the Medical Research Committee. In America the admirable *Monthly Labor Review,* published by the Federal Bureau of Labor Statistics, gives almost every month some detailed and exact investigation into the labour turnover of various localities or single factories, and the Public Health Service study under review devotes an entire chapter to the subject.

In the ten-hour plant the labour turnover was actually 176 per cent. in the course of a single year. That means to say that

the new employees hired during the year merely to replace those who had left the factory were about one and three-quarter times as numerous as the whole working force. At the eight-hour factory the rate was only 30 per cent.

A fact of the greatest importance that is brought out is that employees who have only been in the service of the factory for short periods are those that are most liable to leave. In the ten-hour factory, where a detailed comparison is made, those who had been with the factory less than three months numbered 28 per cent. of the total employed, but out of all those who left the same "length of service" class formed 68 per cent. Fifty-three per cent. of the working force had been with the factory one year or more; but only 12·6 per cent. of those leaving had served as long as this. The turnover, therefore, seems to be due not to an ebb and flow evenly distributed among all workers, so much as to a constant migration among a great number of "floaters" who pass rapidly from factory to factory according as they find conditions. The investigators therefore pushed their inquiry further and attempted to track down exactly what conditions there were that were so upsetting to this class. They rated all the departments of each factory on the following six heads: air conditions, lighting, noise, amount of heavy muscular work, amount of work straining the eyes, and prevalence of night work, and then attempted to find a relation between a high rating and a high turnover. In the eight-hour factory noisy and badly-aired departments were found to have a turnover distinctly above the average for all departments; in the ten-hour factory it was departments with night-work, muscular strain and bad lighting that were distinctly above average in their turnover.

Besides labour turnover, the American investigators used other indices of ill-feeling (physical and mental) such as the rate of absences for headaches, of requests for transfer to other departments, and of the granting of such requests on medical grounds. The showing of each of these indices is compared, and each is considered in relation to the six conditions above enumerated.

There is a noticeable correlation in the departments of the eight-hour factory as a whole between the rate of requests for transfer and the rate of turnover plus transfers granted, which shows how turnover may be reduced by transferring workers at their request from unsuitable or uncongenial departments. Though the results in general are by no means so conclusive, the methods used, if more widely applied, might point the way very clearly to reforms.

Another phase of labour unrest that the American investigation attempts to reduce to measurable terms is that of restriction of output. It used to be known vaguely that such a condition existed in industry; indeed, there is a wealth of synonym to describe it—ca' canny in England, soldiering in America, sabotage in France. Some actual figures were reported by the present writer to the Health of Munition Workers' Committee, and were published in their interim report. These show, over a period of four months, an "extraordinary stability of output of individual girls" and a "still more extraordinary similarity in output of different girls employed at the same process."[1] Dr. Vernon, in Memorandum No. 18 of the same Committee, suggests a more exact method of detecting voluntary restriction by the use of probability curves, but he had "no available data to illustrate the distribution of output values experienced under trade union restrictions."

Such a distribution the American investigators are actually able to provide. The method used is simpler than Dr. Vernon suggests, and in their tables they are concerned mainly with the similarity in the average output of different individuals. These tables show that in some operations of the ten-hour plant the average output from each individual worker only varies within the narrowest range from that of his fellow-worker, while in similar operations in the eight-hour plan the range of variation is, proportionately to the amount of output, something like ten times as wide.

Incidentally, it is a mistake to speak of "*trade union* restriction"; the ten-hour plant was practically a closed shop—closed, that is to say, against the union. Restriction seems to be a general reaction of the employee as such against the system under which he works. The fear of piece-rate cutting and the general sense of insecurity seem more potent than any trade union regulation. In fact, to guard against any premature judgment of the underlying causes, the American investigators have adopted the entirely neutral word "stereotyping" to describe this reproduction of identical outputs.

Wherever stereotyping was found on any operation, the investigators were careful to isolate the results. The composite hourly output curve for the whole ten-hour factory used for comparison with the eight-hour factory was free from the effects of restriction. At the same time, a specific hourly output curve was obtained for stereotyped operations, which is of a very interesting

[1] Page 72.

shape. In his report to the British Health of Munition Workers' Committee, the present writer detected "a deep and continuous fall in the power (consumed) . . . in the last two hours of the day shifts" where restriction was prevalent. The American tables show the tendency to be somewhat less simple than this. The last hour for the combined stereotyped operations is certainly extremely low, 25·4 per cent. below "possible efficiency," but the last hour but one actually has the highest output of the day —only 3 per cent. below "possible efficiency." The last hour but one in the morning spell is also comparatively high in output (6·5 per cent. below "possible efficiency"). The explanation given is "that the workers, working deliberately below capacity through the day, must spurt to make the day's required output, and usually do so before the very last hour." The workers do not feel like making their stint at the outset, nor do they leave it to the very end when machine trouble or lack of stock might prevent their reaching the stint altogether. What they seem to do is to keep just about an hour "up their sleeves" in reserve—human yet logical.

No one would be more ready to admit the limitations of this study than the investigators themselves. There was no opportunity of testing the effect of a general reduction of hours on the whole level of fatigue, and the existence and implications of the yet more sinister *accumulating* fatigue still remains buried in obscurity. What this study has done is to throw considerably more light on the daily *cycle* of fatigue, the see-saw of periodic work and rest. In addition, the American investigators have thrown out sundry scouting parties into the vast uncharted regions of the Great Industry by which we live, or hope to live.

Historians, psychologists and economists have turned to more illustrious themes—less complicated, too, and soluble in one's own study. But sooner or later a painstaking research must be commenced at the basis of our economic life, the productive processes of the factory; and in their detailed measurement of the conditions of personal inefficiency and factory disorganisation the American investigators have blazed the trail.

P. SARGANT FLORENCE

THE AMERICAN RAILWAY SITUATION

I.

On February 26, 1920, the Congress of the United States, after exhaustive consideration by Committees of both Houses extending over more than three years, passed a new law, the Transportation Act, 1920, so far reaching in its scope, and so important in its provisions, that it is likely to remain the organic statute of the American railroads for a long while to come. On March 1st, the President handed back the railroads, which had been under Federal control and management since the end of 1917, to their respective owners. There is almost universal agreement in the United States on two points: that railroads should, if possible, be operated by private companies and not by the Government; but that, if private ownership under the carefully elaborated regime of the new law fails to work, Federal ownership and operation is the only alternative. Seeing that, as the result of the Great War, the railway system—by "system" is to be understood not merely the physical machine but the political and financial structure of the organisation—of almost every country has been broken down and has to be reconstructed from the bottom; and seeing that the railways of the United States represent in mileage more than one-third, and in volume of traffic probably more than one-half, of those of the whole world, a summary of the new American legislation and of the history that has led up to it should not be without interest.

American railway history begins at the same time as our own. The first few miles of what is now the main line of the Baltimore and Ohio Railroad were opened in May, 1830, four months before the opening of the Liverpool and Manchester Railway. For the next twenty years the railways were merely local concerns. In the fifties, the consolidation into through systems began. The Civil War, which lasted four years, rudely interrupted the process. After 1864 it began again with fresh impetus. Not only were the small lines in the old settled States joined up and consolidated into great systems, but the railroads pushed out across the Mississippi, and in 1869 reached the Pacific Coast. Such legislation as was passed in those days, so far from being regulative or restrictive, was not merely enabling but encouraging. Railroad com-

panies could be incorporated under the general law.; and a handful of promoters could register a company, acquire land compulsorily, raise funds, and start to build their line with fewer formalities than would be required here to-day in the case of an ordinary limited liability company registered at Somerset House for the establishment of a new factory. Subsidies were freely given by public authorities, governments, State and Federal, counties and cities, in the form not only of money but land grants, exemption from taxation, subscription of shares, guarantee of bonds, and so forth. Promoters sold the bonds, guaranteed or unguaranteed, for what they would fetch, built the railroad with the proceeds, and allotted themselves gratis an equal amount in nominal value of share capital. The public looked on and approved. To get railroads was the one thing that mattered. How they got them and on what terms, and what sort of a railroad—so long as there were two rails on which a locomotive could run—they cared not. As a result, railroads spread out over the west at the rate of many thousands of miles per annum.

The achievement was magnificent. The country was opened up at a rate hitherto inconceivable. But the inseparable abuses were grave. Vast fortunes were accumulated by methods which were more than questionable. The railway magnate, who could make or break a town by establishing a "division point" or diverting a through line a few miles on one side or the other, was a despot not always benevolent and sometimes not clean-handed. Scantiness of traffic in country only just opened to settlement led to fierce scrambles for what existed, culminating in constant rate wars. At points where two roads met, the rival companies would offer to carry grain for a rate one-half or one-quarter of what either of them was charging at a non-competitive point twenty miles away. In the struggle to get traffic all idea of an obligation to treat customers alike went to the winds. Published schedules of rates—and even they could be changed overnight—were only made to be disregarded. Before the Hepburn Committee, not in the wild West but in New York State, in 1879, witness after witness testified to obtaining rates one-third or one-quarter or even one-fifth of the published figure. Asked by a member of the Committee, "Do you pay no attention to the schedule?" one witness replied " I do not think I ever saw a schedule; I do not know anything about them. They are like the weather, I presume." And another witness, who said he had been in business for twenty years, confirmed this evidence. Worse than all, powerful interests—the Standard Oil is the most famous instance

—by threatening to divert their whole traffic, compelled the railway companies, even in one instance the great Pennsylvania Railroad, not only to allow them enormous rebates from the published tariff on their own traffic, but also to pay them a handsome commission on every ton of traffic carried for weaker rivals.

The story in its ugliest features is forty or fifty years old. The last lingering traces of secret rebates were stamped out about the end of the century. But the memory of them is burned deep into the recollection of the American people, and the effect still remains. The time when a candidate for the Governorship of a great state could make the main plank in his platform a promise that, if elected, he would "shake the railroads over Hell" is past. But even to-day an Englishman can hardly read the utterances on railway questions of American economists or legislators, or the judgments of the various Commissions, State and Federal, without feeling that there is in them a bias, possibly unconscious, against the railway companies; that the mental attitude is not one of impartiality, but of a desire to protect the public against an oppressor.

And in one sense the public has protected itself most effectually. It has gradually, partly by direct legislative enactment, partly by the decisions and regulations of railway Commissions, so tied and bound the railway companies that they have been rendered pretty nigh incapable of injuring the public. Unfortunately, a man in chains is as incapable of helping as of harming his neighbours. The railway companies have suffered. But the public has suffered with them. It is a matter of universal agreement that the existing railway companies are short of rolling stock; that their terminals are hopelessly inadequate for their traffic; that railway extension is at a standstill, and that the reason is that the investor refuses to find new capital for railway enterprise because railway investments have ceased to yield a commercial return.

The regulation of railways began with the States. Massachusetts had a Railway Commission as long ago as 1869. Federal regulation only followed eighteen years afterwards. Meanwhile State regulation had a varied history. The State Commissions were, broadly speaking, divisible into two classes, commonly described as "Commissions with Power" and "Commissions without Power." The former were mainly in the East; the latter in the West. Massachusetts may be taken as the type of the one; Illinois and Iowa as the types of the other. The Massachusetts Commission had no power except to investigate a

complaint, to call for persons and papers, and to make and publish a Report. For many years it was eminently successful, partly because of its personnel, partly because in an old and settled community the companies with which it had to deal were prosperous and well behaved, and amenable to local public opinion. In the West it was very different. The railway companies represented to the local farmer or miner not a fellow citizen, but the bloated capitalist of the East or of Europe. The Commissions in the West were given drastic powers and exercised them with the rough and ready justice of a miners' camp.

The establishment of the Interstate Commerce Commission in 1887 marked the beginning of a new era. Its powers were small at the outset; but a whole series of amending Acts have constantly increased them, till in practice, though not in theory, it may be said to-day that the whole responsibility of railway regulation is henceforth vested in the Federal authority. The constitution of the United States gives to Congress the "power to regulate commerce among the several States." It is on these few words, whose implications assuredly no one foresaw in 1788, that the whole fabric of Federal jurisdiction has been built up; and their effect has been that, in spite of the tender-handedness with which every legislator ventures to touch State rights, the jurisdiction of the separate States over railway companies, each of which is in law the creature of the sovereign State by whose Charter it has come into existence, has gradually been ousted.

II.

To appreciate the position which has culminated in the enactment of the new law, it is necessary to go back to the situation as it existed about the end of last century. The uncontrolled competition of earlier years had forced down rates, taken as a whole, to an uneconomic level. Only an extraordinary increase in operating efficiency, with a corresponding decrease in cost of handling traffic, had enabled the companies to avoid bankruptcy. And at this point a new wave of regulation, State and Federal, increasing both in stringency and minuteness, came in all over the country. The result was not merely to stereotype existing rates at the level to which competition had forced them, but by constantly pressing for the adjustment of long-standing inequalities, to reduce them to a still lower average. Not a few State Legislatures and Commissions went further. They endeavoured with some success, not only to redress inequalities, but to produce new inequalities

in favour of their own citizens as against the citizens of neighbouring States by reducing intrastate rates, and the companies were compelled in turn to re-redress the balance by levelling down interstate rates.

Nor was it only in matters of rates that regulation was burdensome. State Commissions in many cases interfered with the issue of new securities. A Company operating in ten States, proposing to raise new capital, found itself obliged to obtain consents from six of them. And as each State was apt to stipulate that a certain proportion of the capital should be spent within its own borders, a Company proposing to raise, say, $10,000,000 might find that it had no power to do so except on condition of being required to spend, say, a total of $12,000,000 in the six States. Or again, on other occasions, a Commission might delay its consent till the market had been missed, and the money had either to be raised on more onerous terms, or could not be raised at all; or again a State might prescribe that an issue should not be made except at a price at which the market refused to take the securities.

Vexatious interference with ordinary management was equally common. Companies were ordered to stop through expresses at quite insignificant county towns; they were constrained to spend money on the erection of stations, not to meet traffic requirements, but to add to the architectural dignity of a city. The appliances they were to use and the methods they were to adopt in their daily operations were prescribed in detail by legislatures composed mainly of farmers.[1]

So long as the cost of material remained low and the standard of wages was not raised, the companies as a whole managed to carry on, though on more than one occasion companies, representing something like 40,000 miles of line, were in a receiver's hands at one time. But even the strongest companies found the margin between receipts and expenditure constantly shrinking, and became alarmed about their future. The pace at which new

[1] I was travelling in Texas some ten years ago on the line of a railway company then struggling to keep out of bankruptcy, but which has since succumbed. I found a new station in course of erection at a quite unimportant town. The walls of the waiting-room were being panelled with marble, and the cost of the station was estimated to be £60,000. When I expressed my astonishment at the extravagance. I was told, that if the company did not do it voluntarily the Commission would compel them. The engines of the same company were equipped with electric headlights. They were, on the whole, inferior, said the responsible officer, to oil lamps; but as the company's lines were situated in several States. and one of them had a law requiring electric headlights, it was better to equip all the engines to the same standard.

construction was undertaken slackened till it gradually almost wholly ceased. Not only did Boards of Directors hesitate to incur expenditure with scant prospect of an adequate commercial return, but the outside investor took fright, raised his terms, and finally refused altogether to buy ordinary stock. Such new money as had to be raised could only be raised by prior charges, and largely in the form of short-term loans. And in America, where traffic fluctuates from year to year and even from month to month to an extent unknown in older countries, financing through fixed obligations, especially short-term notes, which may fall due for renewal at seasons of market stringency, is a dangerous policy.

The United States is a big country, and no generalisation is true for the whole of it. Broadly speaking, the railways of the South West are chronically in or on the verge of bankruptcy; a good many of the great systems of the Central West and North West are prosperous; those of the South are poor and struggling; while the Trunk lines in the Atlantic States, though not without numerous and in some cases important exceptions, have a long record for payment of steady and substantial dividends.

III.

In 1910, the railway companies first made a concerted effort to put up their rates all round. Joint applications to the Interstate Commerce Commission were made by the Eastern and by the Western groups respectively. To an outside observer the need of the Eastern railways for increased net revenue seemed abundantly clear; that of the Western lines not so obvious. After exhaustive hearings the Commission refused both applications. They based their decision, that an increase of rates was not required, on the view that new net revenue was not needed, and on the expectation that neither wages nor cost of material would much advance; and they added that, if they were proved wrong, they would not hesitate to sanction reasonable increases. Three years later the Eastern companies renewed their application. In July, 1914, the Commission admitted that their earlier forecast had been mistaken, that costs had largely increased, and "that the net operating income of the railroads taken as a whole was smaller than that demanded in the interests both of the general public and the railroads." And on these premises the Commission based the conclusion that only a trifling increase of rates ought to be sanctioned. A few days later War broke out. There was panic in New York. Exchange went over $7 to £1.

Business was paralysed. And the need of the railroads—it may be remembered that patriotic citizens throughout the country were urged to "buy a bale of cotton" to avert a general collapse in the South—was profound. An emergency application was made to the Commission, and at long last sanction to a general 5 per cent. advance in rates was given. Again, in 1916 and 1917, insistant facts constrained the Commission to permit further advances of 15 per cent.

The War, which at the outset looked like depriving the American railroads of a large part of their business, had not lasted more than a few months before it began to bring them a volume of traffic wholly unprecedented. As every manufacturer knows, when new business piles in, when the plant is producing its maximum output, before costs begin to go up, and before new capital for increase of plant has to be raised somehow, profits are bound to be large. And so it proved with the American railways. Questions of finance sank in 1915 into the background. The urgent question was how to handle the enormous increase of traffic with a machine wholly inadequate for the work. The companies struggled with the situation to the best of their ability. But during the years 1915, 1916 and 1917 it got more and more beyond their control. Rolling stock was far short of requirements; terminal accommodation at Atlantic coast points hopelessly inadequate. Even had labour and material been available to increase them, the companies had neither sufficient money nor credit for the purpose. They were forbidden by the original Act to Regulate Commerce of 1887 to enter into pooling agreements. They were liable to prosecution under the Sherman Anti-Trust Act of 1890 if they attempted to combine their resources. Still they struggled to perform impossibilities. In April 1917, a few days after the United States declared War, the companies, with the tacit approval of the Federal authorities, constituted a Railway War Board to obtain the maximum concerted action possible. Urged by the same authorities, they cancelled passenger trains wholesale to make room for freight. And thereupon the Louisiana State Railroad Commission promptly imposed upon the Texas and Pacific Railroad, which had taken off nine branch passenger trains, a fine of $5000, with an additional $5000 for each day subsequent, for the "arbitrary, wilful, deliberate and flagrant" violation of the rule forbidding suspension of trains without leave of the Commission.

Congress in August, 1916, had passed an Act authorising the President in time of War to take possession of the railroads.

And, in the closing days of 1917, the President acted upon this authority. He assumed possession of the railroads and appointed a Federal Director General with practically despotic powers. Departing from the English precedent, where the actual management had been left undisturbed in the hands of the existing organisations, the new Director General, though the Government was required by Statute to return the railways to their owners at the latest within one year and nine months after the end of the War, forthwith decided to create a new Federal organisation and to manage the railways himself. He established a new administrative machine, recruited, as was inevitable, in the main from the old railway officials, but both geographically and hierarchically cutting across the organisation of the companies in every direction. So far as could be done at short notice, he re-arranged the whole vast railroad system on a consolidated instead of a competitive basis. He subjected non-essential traffic to a wholesale system of embargoes, and when he did carry it, sent it, regardless of traders' instructions, over what route he pleased. He threw open the terminals of one company to the traffic of what had hitherto been its rival, and put all the rolling stock of the country into one common pool. Two other departures from English precedent deserve notice. During the War, our companies carried Government traffic free, no account being kept of its volume and no charge made. In America, all traffic was charged against the Department concerned, in order that full records, both of money earned and of traffic carried, might be maintained. We scrapped such scanty statistical information as had previously been compiled. In America, their ample statistics were not only continued but enlarged, and a special Statistical Department was established in charge of a Chief who duplicated the functions of a railway official and of a Harvard professor.

With a stroke of his pen the Director General added nearly £100,000,000 to the wages bill, and with another he added 50 per cent. to every passenger fare, and 25 per cent. to every freight rate in the country. It was high time, for he estimated—and needless to say his estimate was largely exceeded—that the expenses for 1918 would exceed those for the year 1917 by a sum of between $166,000,000 and $192,000,000.

IV.

There is no need to enlarge further upon the history of Federal management during the 27 months that it continued. It was

not very successful. In the nature of things it could not be. Even though public opinion, backed by the War powers of the President, enabled the Director General to brush aside a whole mass of obstacles that had proved insuperable to the private management of the companies, his task was an impossible one. The physical machine was entirely inadequate for the work thrown upon it; and it was impracticable in a few months, with labour unattainable and materials and factories pre-empted for army supplies, to catch up the deficiencies that had been accumulating for a series of years. Expenses advanced by leaps and bounds. Cost of materials increased probably even faster than here in England. As for wages, though the percentage increase was less, the gross advance has been much greater than here. It is estimated that the average earnings per employee were in 1906, £118 per annum; in 1917, £198, while to-day they are something like £300. Heroic efforts were made to make up the deficiencies in plant due to the enforced economies of previous years. In May, 1918, the Director General budgeted for a capital expenditure of £230,000,000. But it was found impossible to spend it, and only £40,000,000 was actually spent in the first half of 1918.

A word must be said about the financial arrangements between the Federal Government and the companies. Broadly, it was on the same lines as that concluded here by the Treasury. But there were two main differences. Instead of a general agreement, covering all the companies and contained in eight lines of a letter, the American Government undertook to enter into a separate contract with each company; and the contract was so detailed and so complicated that negotiations with a Committee of railway solicitors as to the general form of contract required nine months of constant discussion, while in some cases the actual contracts themselves with the individual companies have not yet been formally executed. Further, the standard of payment to the companies for the occupation of their property was based, not as with us on the earnings of a single year, but on the average of "the test period" from June 30, 1914, to June 30, 1917. There is a further difference of which the importance is considerable. Here the agreement was made verbally at the time the railways were taken over and confirmed in writing within 48 hours. In America, the railroads were taken over on December 28, 1917, but authority to the President to contract for payment was only given by Statute on March 21st. The constitution provides that not even President or Congress or both combined can take possession of property "without due process of law," which means ultimately on terms

approved by the Supreme Court. Theoretically, therefore, the companies were amply protected. But as a matter of practical fact the Government had possession of the properties; each company continued liable to its bondholders for interest payments as they fell due, month by month, and the companies had no revenues coming in to meet these debts. The Government had the whip hand; and in the last resort, if they were to avoid bankruptcy, the companies were compelled to accept the interpretation which the Director General, acting as judge in his own cause, might think fit to put upon any clause of the Statute under which the compensation was fixed. And railway companies in America have learned by long experience that, though they may sometimes get justice, they need never expect generosity from public authorities.

The net sum payable to the companies under the various agreements is estimated to amount roughly to $950,000,000 per annum. It has proved impossible for the Federal Administration to earn this money except by a further steep increase of rates; and this further increase the Government, in spite of the protests of the companies, who looked forward with dismay to their position when the railways were handed back, has steadily refused to put in force. There was a deficit of £47,000,000 to be met from taxation in 1918. For 1919 it is estimated that the deficit will be, in round figures, £100,000,000. And there is also to be met a deficit on the same scale for the two months to March 1st, 1920.

To an outside observer it appears that on the whole the Federal Administration succeeded better than could have been expected. But a remarkable result has ensued. Till it was submitted to the test of practical experience, Government ownership and management had in the States not a few supporters. Since they have actually been tried, public opinion is quite overwhelmingly opposed. The Railway Unions are, there as well as here—officially at least—solid in its favour; and organised labour as a whole is on the side of the railway men. By every other class—farmers, traders, manufacturers, legislators, newspaper editors—condemnation is practically universal. Whether the railways would ever be handed back to their owners, was in the beginning of 1918 a very open question. By the end of the year, that they would be handed back was practically certain. The only questions were, how soon and on what terms. Suggestions of two successive Directors General —supported by strongly reasoned arguments—that Government management should be more thoroughly tried out during an experimental period of five years, by the end of which a reversion to

normal conditions might be expected to have taken place, were brushed aside almost contemptuously by Congress.

V.

The Transportation Act, 1920, restoring the railroads to private ownership, was signed by the President on February 28th, and went into effect at midnight on the following day. Like its predecessor, the original Interstate Commerce Commission Act of 1887, it is the result of a compromise between two schemes proposed by the House and the Senate respectively, which differed widely from each other in important particulars. Though the Act divests the Government of the control of the railways, it provides that control of the waterways and water transport shall be continued under the charge of the Secretary for War. Reluctance to relinquish the ploughing of so fruitful a field of what is commonly known as "pork-barrel" legislation may or may not have been the reason for this reservation. A series of transitory provisions deal with the conditions of re-transfer, including the winding up of accounts, the funding for ten years of Government advances, the continuance of the emergency rates and fares for six months and thereafter till altered by proper legal procedure, and the continuance of the guaranteed revenue for the same six months. For the purpose of providing for interim finance, a sum of £60,000,000 is placed at the disposal of the Interstate Commerce Commission to be employed in advances to the companies for capital purposes.

The Senate Bill provided for compulsory arbitration and made a strike against an Award a penal offence. Naturally, the Unions opposed fiercely; and the House of Representatives refused to agree. In the result the scheme for settlement of disputes as to wages and working conditions as passed closely resembles that which has been introduced here by the Minister of Transport. Three stages of procedure are laid down.

(1) All disputes are to be considered and, if possible, decided between representatives of the two sides.

(2) Boards of Labour Adjustment *may* be established by agreement between any company, group of companies, or the companies as a whole on the one side, and any employees or employees' organisation or group of organisations on the other. Their jurisdiction, it will be observed, is merely permissive, and is confined to "disputes involving only grievances, rules or working conditions."

(3) The important body is the Railroad Labour Board. It

has nine members, appointed at a salary of £2000 a year each—a very high official salary for America—by the President, by and with the consent of the Senate. Three members each constitute respectively the "labour group," the "management group," and the "public group." The members of each of the two former groups are to be selected by the President from a list of six submitted to him by the group interest to be represented. The members of the public group are selected by the President directly.

The Labour Board has very wide powers. It decides appeals from the Adjustment Board; and hears all disputes in reference to wages, with a special provision that, if the decision involves such an increase of wages as will be likely to necessitate a substantial readjustment of rates, the operation of the decision may be postponed. The decision of the Board must be made by an absolute majority, and if it affects wages, at least one of the members of the public group must concur in the decision. The Board is required, not only to deal with the cases brought before it, but to carry on continuous investigation in reference to wages and hours and conditions of labour; and to gather, compile and publish data and information on such matters, for the benefit, not only of the Board, but of the public. The Board has power to subpœna witnesses, to compel the production of documents and to hear evidence on oath. Finally, the companies are forbidden for a period of six months to reduce any wages fixed during Federal control.

During the long discussion which took place before the Committees of both Houses, various schemes for administrative control were put forward. The railroad companies proposed that there should be a new Cabinet officer, a Secretary for Transportation. The Senate Bill proposed to establish an independent Board of Transportation. Neither of these schemes have been accepted. In the Act as passed the whole control, executive, administrative, and, as we should say, judicial—though the Constitution of the United States refuses to recognise as judicial a body of mixed function—together with, in some cases, the functions of a public prosecutor, is centralised in the Interstate Commerce Commission. And to correspond to its greatly increased powers and duties the number of members is augmented and their salaries increased. It is impossible to enumerate their powers at length. They may be compared in scope and stringency to the powers exercised by the Government in France and in India, or to those given to our Minister of Transport in the temporary provisions of the Ministry of Transport Act rather than to the carefully restricted powers

exercised before the War by our Board of Trade and Railway Commission. No company may in future extend its railway, acquire a new railway, or obtain working powers over it, or abandon any line which it now works, without the consent of the Commission. The Commission may at any time order the Company at its own expense to provide safe and adequate facilities, and to extend its lines, subject to the condition that the expense must not be such as to impair the ability of the company to perform its duty to the public. Provided it does not interfere with the ability of a company to handle its own business, the Commission may at any time order one company to permit another to use its terminals. In times of emergency, of which the Commission is sole judge, it has power to suspend any rules, to divert traffic as it thinks proper to other routes and to order one company to supply rolling stock to another.

The original Act of 1887 made pooling illegal; and the Sherman Act of 1890 practically forbade all agreements between companies, even in reference to the fixing of competitive rates, as being in restraint of trade. In future a company may lawfully pool traffic, and enter into agreements, even to the extent of surrendering the control of its line to another company, if and so far as permitted by the Commission.

There has long been general agreement, not only among railway men, but in Congress and public opinion, that the whole of the railways of the United States should be consolidated into a limited number of large systems. The Senate Bill contained a scheme for compulsory consolidation into not less than twelve and not more than thirty systems. But public opinion has hitherto refused to go so far as to adopt the French system, where each company has exclusive control of its own district. The new Act instructs the Commission to formulate a plan for the consolidation of the whole of the railways into a limited number of systems, tentative in the first instance, and then, after public hearings, definite; or the companies may on their own motion submit such plans for the Commission's approval. "Under such plan competition shall be preserved as fully as possible, and wherever practicable the existing routes and channels of trade and commerce shall be maintained . . . so that the cost of transportation . . . shall be the same as far as practicable . . . so that these systems can employ uniform rates in the movement of competitive traffic, and, under efficient management, earn substantially the same rate of return upon the value of their respective railway properties."

It is one thing for Congress to pass legislation. It is quite another to carry it into effect. How effect can be given to the enactment as set out above, it passes the wit of man to conceive. Within the last few weeks the Supreme Court has administered a severe reprimand to the Commission for "an unwitting assumption by the Commission of authority which it did not possess," in refusing to carry out a statutory mandate on the ground that the Commission considered that it involved consideration of matters "beyond the possibility of rational determination," requiring "inadmissible assumptions," and "implying an impossible hypothesis." It is to be feared that in future years the Commission may inevitably expose itself to another and a similar reproof.

Hitherto the Commission have only fixed maximum rates. It was open to any company to go below them and force its competitors to follow suit. Henceforward the Commission may fix, not only maximum, but minimum rates, or both, or if it thinks fit may fix the rate that shall actually be charged; and may also settle the apportionment of a through rate between the various companies whose lines compose the through route. To prescribe the method in which and the machinery by which rates shall be fixed, is difficult enough. But the vital question which Congress had to settle was not one of machinery or method but of quantum: how are the railroads of the United States to be enabled henceforward to earn a living wage? That with a few exceptions they are not doing so at present is admitted on all hands. To take one instance, the Pennsylvania Railroad, which for fifty years past has paid a dividend of 6 per cent., last year actually earned only about one-fourth of its guaranteed net income; and its shares, which were always regarded as a gilt edged investment, have fallen to a heavy discount.

Broadly, the question for solution was this. Let it be granted that the railroad companies are entitled to a fair return, what is a fair return? And on what is the return to be calculated? Clearly on the value of the property devoted to the public service. What then is that property, and how is its value to be ascertained? Finally, some companies are strong and rich, others weak and poor. If competition is to be maintained, rates must be the same by all routes. How then fix a rate which shall give no more than a fair return to the rich road, and yet enable the poor road—which, poor though it may be, is yet indispensable to that part of the public which it alone serves—to make a livelihood? The answer of the Statute to these riddles is an interesting combination of theory and what they call in America "horse sense."

That a " public utility " company is not in the same position as an ordinary trading concern; that it is only entitled to a fair return on the capital actually devoted to the public service, is a principle deeply embedded in American legislation and jurisprudence. And popular opinion—apparently influenced by the fact that in many States laws against usury, which forbid loans at a higher rate than 6 per cent., still remain on the Statute Book—has determined that 6 per cent. is normally the outside limit of a fair return. The fact that 6 per cent. was fixed in quite other circumstances, as interest on a debt certain, and not as a maximum possible dividend on an investment, certainly speculative at the outset, and not likely to yield any profit during its first years, is quite ignored. The Courts, when called in to decide upon cases of compulsory purchase or of proposed reduction of charges, have sometimes held that a return of " not less than 6 per cent. " must be taken as a basis, as otherwise the constitutional prohibition of confiscation would be violated. The public have read " 6 per cent.," and have ignored the words "not less than." The Transportation Act requires the Interstate Commerce Commission to fix, for an interim period of two years, such rates as will produce five and a half per cent. on the value of the property *plus*, if the Commission so think fit, an additional one-half per cent. to be devoted, not to dividends, but to improvements properly chargeable to capital but of a type not likely to be directly revenue earning. After two years, the Commission is left at large in the matter, and is instructed to permit the companies to earn such a reasonable return as, having regard to all the circumstances of the case and the need for attracting new capital to railway enterprise, it may think proper. If, however, in the result, any company earns above 6 per cent. on the value of its property, one-half the excess is to become the property of the Government and form a fund to be administered by the Commission for general railway purposes.

The constitutionality of this provision is challenged by the officers of some of the prosperous roads. They argue that rates fixed by the Commission acting under statutory authority must be conclusively presumed to be reasonable rates; that the net revenue earned by carrying traffic at reasonable rates is the lawful property of the carrying company; and that it is beyond the powers of Congress to deprive the shareholders of that which is their lawful property. That this question will be fought right up to the Supreme Court is certain, but in all probability it will be a long time before a decision is finally reached.

It is to be observed that, while a maximum return is fixed for

the strong companies, there is no corresponding minimum guarantee to the weak. The rates may be fixed by the Commission at their discretion for the whole country or for such territorial groups as it may choose to constitute. If, however, five and a half per cent. or six per cent. or any other figure is fixed as a fair return for the railroads of the whole country or of a district, by as much as the rich railroads go above the average, by just so much must the poor companies fall below it. The result of this legislation would seem to be that it will be impossible for the poor roads, which are more likely to be backward in facilities than their rich neighbours, to raise new capital on an adequate scale. Presumably the effect will be that, as soon as the situation is stabilised, and it becomes reasonably clear what the value of the poor lines on a revenue basis is, they will be constrained to sell out on this basis to their richer neighbours.

The "fair return" is to be on the "aggregate value of the property held and used in the service of transportation." What that value is nobody knows at this moment within billions of dollars. There are two things involved, an inventory of the property devoted to public use, and a settlement of the principles upon which the property when inventoried is to be valued. Is it to be valued, to mention one or two of the broadest questions, at what it cost to produce originally; at what it would cost to produce to-day; or at what it is worth as a revenue earning machine? As long ago as 1913, Congress passed a law requiring the Commission to inventory in detail each piece of railway property, setting out separately "the original cost, the cost of reproduction new, and the cost of reproduction less depreciation," to give an analysis of the methods by which these several costs are obtained and the reason for their difference, if any; and to report separately the other values and elements of value, if any, of the property. The Commission is likewise required to investigate and report on the whole history of each company, especially from the point of view of finance and operating receipts and expenditure. This process of valuation has been going on for the last seven years at a cost of many millions of dollars to the Federal Government, and an even larger sum to the railroad companies; and so far as concerns the physical valuation of the property as originally brought into existence is now nearly completed. But even when completed, this is only the first and the easiest stage. It is only a matter of infinite pains, provided the records are still in existence, to ascertain what it cost to produce the original line of say, the Illinois Central in the fifties, and what percentage increase should

be made for the heavier rails introduced since, or what percentage decrease for the fact that a certain number of sleepers have lived out their allotted span and are due for replacement this summer. But to estimate what it would cost to reproduce the Illinois Central to-day is quite another matter. And when it comes to other elements of value, imagination boggles at the task of estimating the value to the Illinois Central shareholders of the fact that Chicago has grown from a village to a town of two million inhabitants, and that the tendency of modern export trade from the Missisippi Valley to Europe is to seek an outlet at New Orleans rather than through Atlantic Coast ports. One can hardly imagine that the Commission will be able to reach conclusions on so vast a subject for a good many years to come. And even when they have, the matter will be far from settled, for it will be open to the companies to appeal on innumerable points to the Courts, and they will evidently not be content, where decisions go against them, with anything short of the judgment of the Supreme Court.

On the whole, it will be a very long while before the Commission will be able to base the rates which they authorise on the fair value of the property as ascertained under the Valuation Act. Possibly, by the time this value is ascertained finally, if it ever is, the American public may have learned to doubt whether the theory that rates should be fixed on physical value is from the economic point of view the last word on the question. It may, perhaps, prove equally important to look at the other side of the shield and to regard the value of a railroad as based upon the rates actually charged and legally or commercially chargeable, and the traffic, actual or potential, available for carriage.

Meanwhile, the Commission is instructed to ascertain fair value in another way. The companies under the form of accounts required by the Commission have what is called their "property investment account." Since 1907, during which period something like one-third of the total railway capital has been invested, this account has been closely supervised by the Commission; and this one-third therefore may be assumed to represent accurately the precise amount of cash properly spent for capital purposes. Before 1907, the accounting methods in vogue showed what was then called "cost of road and equipment" as the equivalent of the nominal capital issued. Whether this amount was greater or less than the cash actually invested, no man can tell. Hundreds of millions of dollars of shares were originally issued as bonuses to promoters or purchasers of bonds. Since then, hundreds of millions of nominal capital, much of it representing

actual cash investment, have been wiped out by sales under foreclosure or otherwise. Accordingly, during the two years beginning March 1st, 1920, the Commission is instructed, in ascertaining the aggregate value of the property, "to utilise the results of its investigation under the Valuation Act in so far as deemed by it available," but at the same time to give "due consideration to all the elements of value recognised by the law of the land for rate-making purposes," and to give "to the property investment account of the companies only that consideration which under such law it is entitled to in establishing values for rate-making purposes." It is to be observed, however, (1) that the law of the land has by no means clearly laid down what are the precise elements of value to be taken into consideration; (2) that still less has it attempted to quantitate these several elements. It may be added that the words "values for rate-making purposes" are apparently introduced in order to determine—as far as Congress has jurisdiction to determine—as against the railroads, a long-standing controversy between distinguished authorities on the question whether a property can have one value for rate-making purposes, and another and different value when it is a question of fixing the price to be paid for the property on a compulsory sale.

The Commission is given the most absolute control over all accounts, records and memoranda of every kind kept by the companies. It is to define the classes of property for which depreciation is to be provided out of income, and to order such percentage of depreciation, as it thinks fit to fix in respect of each class, to be charged against the operating income of the company. The Commission is to have at all times access to all documents or correspondence now or hereafter existing. The companies may not destroy these documents without the consent of the Commission, which has power at any time to send examiners to inspect them. Further, the companies are forbidden to keep any accounts, records or memoranda of any kind except such as the Commission prescribes or approves. This last provision is obviously inserted lest the former custom of keeping private records in which secret rebate accounts were entered should revive.

State regulation of railway securities is finally brought to an end. No company may in future issue capital, either shares or bonds, except for short term notes to a very limited amount, without the authority of the Commission, which is required to satisfy itself that the issue is for a proper purpose, reasonably necessary for such purpose, and to be made on proper terms and conditions.

Provision is made for notification to the authorities of each State in which the company operates, and for their representations being heard before the application is granted.

The Act concludes by declaring it to be the policy of Congress to promote, encourage, and develop water transportation, and that it shall be the duty of the Secretary of War to investigate appropriate types of boats and the subject of water terminals both for local traffic and for traffic exchanged with railways; to advise and co-operate with communities, cities and towns; to determine whether waterways are being fully utilised and meeting the demands of traffic; and to compile, publish and distribute useful statistics, data and information on the subject.

We may summarise the main features of the Act as follows. There is established stringent control, alike in respect of finance, new construction, operation, and rates, over a system of more than 250,000 miles of railway, in the hands of a single body, of eleven members, forming a Board, wholly independent of the President and his Ministers, having no direct responsibility to Congress except in so far as Congress votes their salaries and can at any time alter their position by new legislation. Congress has laid down for the guidance of the Commission general principles on certain points. The railroads are to be consolidated into some twenty great systems; each system is to remain independent and competitive, except so far as the Commission may permit pooling; the rates chargeable are to be such as will produce a fair return on railway property as a whole; but from the fact that these rates will produce more than a fair return for some railroads, necessarily they will produce less than a fair return for others.

How the scheme will work remains to be seen. It may be doubted whether any eleven men could carry the burden that has been imposed upon them. The readiness of the best American citizens to work for their Government at the ridiculously disproportionate salaries which tradition enjoins is well known. But in the long run it must be difficult to obtain men, strong and wise enough to control a group of railway presidents, in return for salaries one sixth or one eighth of those which these presidents themselves receive. It is to be hoped that they will be found. That the greatest railway system in the world should come to State ownership, not because the people want it, but because Congress dare not vote a few hundred thousand dollars for adequate salaries, would be an anti-climax.

W. M. Acworth

THE BELGIAN EXCHANGE SINCE THE WAR

Before the war the question of foreign exchange was already a subject for lively discussion in Belgium. The rise of exchange rates on Paris above the specie point was then causing anxiety, not altogether without reason. This rise was resulting in a constant drain of five-franc pieces and even of other silver coins from Belgium into France, and the National Bank, which for various reasons was not inclined to raise its rate of discount, was obliged to buy back this money in order to place it in the coffers of the Bank, from which it began to flow out once again towards France. In order to repurchase divisional coin in Paris, the Bank naturally had to obtain exchange; the purchases which the Bank proceeded to make on the exchange market tended, of course, to raise the rate, and perpetuated the adverse financial balance by depriving the exports of currency of their regulating effect.

Theoretically the problem was of great interest and gave rise to endless controversies. But from the practical point of view the drain of five-franc pieces was certainly not very serious. In comparison with the present state of affairs, the situation at that time was as the disappointment of a child to an abiding sorrow.

On August 4th, 1914, the German Army invaded Belgian territory in defiance of a plighted faith. This aggression was destined to bring financial and monetary disturbance in its train. Even before the actual outbreak of war bank depositors and holders of banknotes had fallen into a panic. On the evening of August 3rd, when the German ultimatum was received, the Government proclaimed the enforced circulation of banknotes and a moratorium for bank deposits, withdrawals being limited to 1,000 francs a fortnight for each depositor.

In normal times the Belgian Government cannot discount with the National Bank more than 20 million francs' worth of Treasury Bonds at a time. This wise precaution, embodied in the Statutes of the Bank (Art. 23), had to be abandoned under the pressure of a sudden crisis. Yet the advances of the Bank to the State did not attain to a high figure. Before long the greater part of the country was occupied by the enemy; the Government

took refuge abroad, where it lived on credits granted by its greater Allies.

Once they were installed in Brussels, the Germans were not slow to modify the system of note issue on the pretext that the reserves of the National Bank had been shipped to London by the Belgian Government. On December 22nd, 1914, Cavalry-General von Bissing, whom the Emperor had appointed Governor-General of our country, transferred to the Société Générale de Belgique the right to issue notes, or rather, compelled this important financial institution to put into circulation inconvertible notes, mainly in order to advance to the Belgian provinces the amount of the heavy war contributions which he had imposed upon them.

Moreover, immediately on entering Belgium, the invaders had enforced the circulation of marks at the rate of 1.25 franc, a rate which is slightly higher than the mint parity of 1.2345 franc. As the period of occupation was prolonged, the country became flooded with German notes; each year the flood became more formidable on account of the increasing depreciation in the value of this paper money. Experience has proved many times over that the depreciation of paper money proceeds at an ever accelerating pace.

At last in 1918 the country was liberated. Before even the greater part of the territory had been reconquered, the Government decided to redeem in national currency the marks which were circulating in Belgium. The Government acted on the conviction that a conquered Germany would be required to repay this currency debt before all others. The event proved that this was an illusion.[1]

It is true that a loan (called "de la Restauration Monétaire") was issued at once, and that subscribers received Treasury Bonds on payment of three-quarters of their subscription in marks and one-quarter in Belgian notes. But, in spite of this loan, an enormous number of German notes remained in circulation. They were exchanged at the rate of 1.25 franc, and the National Bank was for this reason obliged to make an advance of 5,800,000,000 francs to the State. This advance was represented partly by an increase in current accounts (deposits at sight), but more particularly by an increase in the total note circulation, which rose

[1] A convention has however been concluded, since the signature of peace, between the Belgian and the German Governments, under which the latter undertakes to take back the marks in exchange for Treasury bonds of graduated maturities, and to pay interest and to cover (except for a sum of 600 million marks) the loss on exchange.

to more than 4½ milliards of francs.[1] It is to this operation of redeeming the marks that monetary inflation in Belgium is really attributable. Such inflation is, beyond all question, a relic of foreign domination.

During the period of German occupation the Belgian franc had been artificially associated with the mark. But measures of constraint are notoriously ineffective in currency matters. In fact, Belgian paper had ceased to circulate. All payments were made in marks. When the German Government compelled the Société Générale to provide Belgian francs and then put them in circulation, these francs disappeared as fast as they were issued. There was even a sentimental preference for the old notes of the National Bank. Since all quotations were forbidden, it is impossible to give even an approximately correct statement of the premium paid for them, nor indeed can the premium on gold and silver coin be ascertained. It is asserted that the Germans attempted to buy up coins through the intermediary of agents, whom they suborned in order to avoid the refusal which they would have met with if they had openly offered to bid for coin. It is not likely that by this means they obtained any appreciable quantity.

Abroad, and notably in Holland, the two kinds of national banknotes were quoted at slightly different rates, since the Government at Havre refused to recognise the notes of the Société Générale, in order not to play into the hands of the enemy. The notes of the National Bank were subject to some depreciation in relation to the florin; they were assimilated to the currencies of the Entente Powers.

After the Armistice, regular exchanges were gradually established, naturally not without some depreciation. This depreciation was at first inconsiderable, but has been continuously aggravated ever since.

There is nothing peculiar in this depreciation of the Belgian franc. It is essentially similar to that of the French franc and even to that of the Italian lira. Italy is showing us the way by being the first to take the downward path; France follows at a certain distance, and we follow on the heels of France. There are, of course, others, scouting well in advance of Italy, and much more recklessly; I do not mention them because it is not to be supposed that we shall follow their lead.

[1] This includes the notes of the Société Générale. In reality the Société Générale did no more than lend its name to the issue. It should be stated that on the 30th June, 1914, the fiduciary circulation amounted in round figures to 1 milliard francs.

The facts are only too familiar : all European countries which took part in the war—victorious nations, conquered nations, liberated nations alike—are a prey to the same disease, however great may be the differences in each case of its intensity and curability.

The same causes of depreciation are to be found everywhere. They are well known ; but it will be useful to state them precisely as regards the special case of Belgium. First, the balance of import and export is completely upset, and this is so for the following reasons. Imports of foodstuffs are exceptionally large and costly. They are, moreover, an item which has very little elasticity. To the same category belong imports of machinery and raw materials, which attain to abnormal proportions and are paid for at extraordinarily high prices on account of the urgency of reconstruction and the fever to work which has taken hold of Europe, and particularly of Belgium.

At the same time Belgium is rapidly exhausting—at the rate of several million francs a day—her stocks of foreign securities. It is, in fact, extremely profitable to export them. But the amount which remains available is continually diminishing, and our resources in exchange are consequently on the decline, as well as the revenue derived from these foreign investments which, before the war, enabled us to pay for the excess of imports over exports.

It is true that since the liberation of the country our exports have been increasing month by month ; but, in order to appreciate the real position of our foreign trade, the table on p. 200 should be studied.

What conclusions can be drawn from these figures?

In the month of October, 1919, the total exports amounted, in round figures, to 355 million francs ; in March, 1920, they were valued at 686 millions, an increase of 96 per cent. During the same period the total imports rose from 593 millions to 1,062 millions, an increase of 77 per cent. in five months. Although exports show a percentage increase which is higher than that of imports—a fact which promises well for the future—the difference between the two aggregates increases. In October, 1919, the excess of imports over exports was 238 millions ; in March, 1920, it was 376 millions, an increase of 138 millions in the monthly deficit. If the aggregate value of imports continued to increase by 77 per cent., and that of exports by 96 per cent., every five months, the excess of the former over the latter would also continue to increase, and would amount, for example, in June, 1921,

to a sum of 694,500,000 francs. But this method of reasoning would be fallacious, for we must expect an appreciable decline in the rate of increase for imports, especially of raw materials and foodstuffs. These latter have already begun to decrease noticeably. None the less, it is, unfortunately, certain that our trade balance shows a more serious deficit in 1920 than in 1919, and

FOREIGN TRADE OF BELGIUM.[1]

Francs (000s omitted).

Month.	I. Live Stock.	II. Food and Drink.	III. Raw Material or semi-manufactured goods.	IV. Manufactured Goods.	V. Gold and Silver Coin and Bullion.	Total.
1919.			Imports.			
October ...	16,129	130,473	280,608	165,995	693	593,898
November ...	15,269	183,824	262,315	169,904	285	631,597
December ...	26,471	265,359	341,991	202,404	297	836,522
1920.						
January ...	24,472	142,121	428,652	224,211	710	820,166
February ...	10,831	195,772	462,713	235,467	637	905,420
March ...	25,562	178,781	539,042	318,684	194	1,062,263
1919.			Exports.			
October... ...	651	89,318	124,362	139,042	2,946	355,869
November ...	537	79,036	134,004	159,760	1,831	375,168
December ...	878	63,420	195,659	233,769	67	493,793
1920.						
January ...	459	42,312	193,178	211,593	664	448,206
February ...	608	47,941	255,513	286,720	2,289	593,071
March	688	43,635	304,981	336,789	—	686,093

[1] The statistics prior to October, 1919, are incomplete, and it is preferable not to take them into account. It must also be stated that the figures in the above table are not definitive; but the modifications to which they might be subject are in all cases unimportant.

that the monthly load to be carried on this account by the Belgian exchange has been increased by 100 million francs. Future prospects are brighter; but in the meantime the present position is all the more critical.

The influence of foreign travellers in Belgium since the

Armistice is of quite trifling importance from the point of view of exchange, and is probably more than counterbalanced by the influence of Belgian travellers abroad. The situation may, however, be modified in this respect before very long. The coming summer is expected to bring a great influx of foreign tourists.

There remains the question of foreign credits. This is a delicate and serious question, which occasioned painful disappointment in Belgium when the country was at last delivered from the long period of economic paralysis caused by the enemy occupation.

At the outset, it must be admitted, we obtained advances which were not inconsiderable in amount; but we were not given freedom to use, in whatever market we might choose, such sums as were placed at our disposal. We had need of "free exchange," but the lending countries demanded that the amounts advanced should be used for the purchase of goods produced on their own soil by means of the raw materials which they could draw from it. Or at least they intended that, if the goods in question were manufactured in their own country by means of material of foreign origin, the value of those goods should be attributable mainly to the labour of their nationals which contributed to the making of them.

Belgium obtained, in these circumstances, a credit of £9,000,000 from the British Government, a credit of £4,000,000 granted by a syndicate of the principal banks in London, and an advance of $50,000,000 provided by an important group of American banks. The Exchange Committee, of which more later, was entrusted with the task of controlling the use of the exchange so obtained, subject to the observance of the conditions on which the advances had been made.

Belgium had indulged in the illusory hope that it would quickly prove possible to restore the exchanges to par; but once the credits were exhausted the situation went from bad to worse. The lending countries, harassed by the demands of the whole of Continental Europe, began to tire, and even to lose confidence. If Belgium alone had been hard hit by the calamities of the war, there can be no doubt that the assistance afforded to her would have been far more considerable and far more efficacious.

When help from abroad began to fail us, it was inevitable that the want of equilibrium in our trade balance should be manifested by a rise in exchange rates and in all internal prices. It must be admitted that an excess of credits would have been dangerous, in that the Belgian people would have been encouraged to believe

that its former prosperity had already returned. There might have been some inducement to import unnecessarily, and exports would have lacked the stimulus—quite temporary though it be—of a rising exchange. But credits distributed with discrimination, enabling the country to lay in stocks of raw materials and foodstuffs at reasonable prices, would have hastened economic restoration without blunting the energies of a people which, after all, is little inclined to *far niente*.

However that may be, the present situation has not discouraged producers in Belgium. They are working with vigour and determination, in spite of the fact that the instability of prices makes all their operations unusually precarious, raising many difficulties in the conclusion of contracts and giving rise to continual disputes with the workers.

We have not yet considered, among the causes of the depreciation of Belgian francs, the influence of currency inflation. In the *Times* newspaper of April 19th, 1920, the following passage occurs: "If the Belgian Government, in order to finance its requirements, issues, say, 500,000,000 francs of paper money, thus inflating purchasing power and increasing the demand for goods, the value of the whole of her currency is proportionately reduced, and the parity will be shifted to another figure." In reality this is a purely hypothetical case, for the Government, far from increasing inflation, has successfully attempted to reduce it by the repayment, as a first instalment, of 300 million francs on account of the debt of the State to the Bank. If, in spite of this repayment, the note circulation has been increased by about 300 millions since the redemption of the German marks (which was completed on June 30th, 1919), the reason is that the Bank has extended the scope of its credit operations. Moreover, the real monetary situation is best seen if the value of deposits at sight is added to the amount of the note circulation. The fact is that since June 30th, 1919, the aggregate amount of these two kinds of obligation taken together has remained at about 7,200,000,000 francs.

It was necessary to draw attention to these facts in order that the reader might not imagine that the Belgian Government is making use of the printing press in order to meet a portion of its expenditure. Taxation and borrowing are the only resources of the Treasury.

But there can be no disputing the fact that the redemption of German marks by Belgian notes has perpetuated the inflation created in Belgium by the Germans. During the occupation this

inflation could not influence the exchanges because, on account of the blockade and the state of war, Belgium had, practically speaking, no economic relations with the rest of the world. But after the liberation of the country these relations were gradually re-established. Thanks to the extreme shortage of commodities and the excessive abundance of paper money, Belgium was at that time a country with an exceptionally high price-level. Purchases were immediately made abroad, especially in Paris, to meet the pressing needs of the population. It must not be forgotten that foreign purchases would have been made even if the circulation had not been excessive. Would such purchases have been on a very much smaller scale? It is scarcely probable. It must be supposed that large credits would have been opened in order to provide the population, in its great need, with the purchasing power which it lacked. Or, rather, the banks would have given credit to all those who could provide security, and the Government would have had to make gratuitous distributions—as, indeed, it did—to those who were without means and without work. Such credits would not have been possible, however, without an increase in the circulation of paper money.

The extreme shortage of commodities has therefore exercised a much more powerful influence on the exchanges than any excessive abundance of banknotes. But if the German marks had been replaced, not by banknotes, but by Treasury Bonds with a maturity of several years, it is certain that purchases of more or less superfluous foreign produce would have been far smaller, more especially as the internal price-level would have been appreciably lower. It would therefore be a mistake to regard inflation as having contributed nothing to the depreciation of Belgian francs abroad; but it would be an exaggeration to pretend that it was the chief cause.

Another point which deserves to be examined is the close connection between French and Belgian francs in exchange. This connection existed in the past, but was attributed mainly to the unified currency system adopted by the two countries in 1865 at the foundation of the Latin Union. At the present time, although the French and Belgian currency units continue to bear the same name of "franc," they are, in fact, different. If, therefore, the two exchanges still do not diverge considerably, the reason must be sought elsewhere.

The first reason is obviously that we are suffering from identical evils, and particularly from a serious deficiency of exports. But there is a second reason which it is interesting to establish :

it is the multiplicity and the intimacy of Franco-Belgian economic relations. It would take too long to enumerate them in detail. It must suffice to say that these relations are not only of the commercial order, but are also financial. The two countries have common interests in every sphere, and this gives rise to a connection between their exchanges which, without being absolute, is certainly very close.

From this it follows that the rehabilitation of Belgian exchange would seem to depend to some extent upon the rehabilitation of French exchange. Arbitrage, which, though controlled, as we shall presently see, is not prevented from performing its proper function, enables the French banks to buy English, American, or Dutch bills in Belgium, if they think it is to their advantage, at the expense of a slight rise in the Paris price for bills on Brussels. It should be remembered here that the far greater importance of the Paris market, without absolutely dominating the Belgian centres, does exercise upon them a powerful influence which is certainly not reciprocal. Before the war this was not the case to the same extent, on account of the various commercial and financial relations of Belgium with Germany, which are now reduced to insignificant proportions. The influence of the London market, it must be admitted, is still considerable; but it is effective in the same direction towards Brussels as towards Paris, and therefore does not counteract the influence of Paris on Brussels.

The interdependence of the French and Belgian exchanges has not, however, prevented the existence of a premium of from 6 to 7 per cent. in Belgian currency in Paris. The reason for this premium is said to be that we supply France with coal, sugar, cement, plate glass, and even labour.[1] It is also connected with the existing regulations which govern the exchange market in Brussels, and it will be useful to consider these régulations here.

When the Allied armies entered victorious into Belgium, an intense desire for liberty took hold of the whole country. The Germans had overwhelmed it with vexatious and hateful regulations. The most trifling things were forbidden or required to be previously authorised. The measures of repression were merciless. A single instance may be quoted, but it is typical: the city and suburbs of Brussels were surrounded by military piquets whose duty it was to prevent potatoes and butter from being

[1] We refer to the many Belgian workmen who go to work in France but who come back to their own country daily or periodically, and bring with them a large proportion of their earnings.

brought into the town. Smugglers—if they can be so called—were hunted like game. I was personally present at a drive with guns in the forest of Tervueren. One does not forget such things. . . .

When the Germans had gone the cry was for liberty. It would have been useless to attempt any regulation of the exchanges at that time. Everyone would have exclaimed: "It is the Boche *régime* all over again!" A plan for the creation of an Exchange Office, elaborated at Havre before the return of the Government, was therefore abandoned.

But after a few months it became clear that measures of some kind were, after all, indispensable, as the situation was becoming so threatening. Moreover, credits had been obtained abroad, as we have mentioned already, and it was necessary that they should be judiciously distributed.

By Order in Council of March 28th, 1919, the exportation of funds, securities, and coupons was consequently prohibited, as was also the sale of securities in Belgium for foreign account, unless the proceeds were reinvested in Belgian securities, or the securities themselves had been imported before the war. The Decree also set up an Exchange Committee, in which the non-official element (bankers, manufacturers, and merchants) was predominant, but at the same time including representatives of the different public departments concerned. Its function was two-fold. It was to apply to the needs of economic reconstruction such foreign credits as had been placed at the disposal of the Government. For this purpose it examined the requests for exchange which were submitted to it, and rejected those which did not appear to be connected with the work of reconstruction, thereby relegating them to the free market. In the second place the Committee was called upon to give its opinion about the special permissions given for the export of capital (securities, coupons, banknotes, or coin), which the Government had reserved to itself the right to grant in exceptional circumstances.

The Exchange Committee exercised its functions regularly for several months. But, later on, its activity was gradually diminished until at last, in the course of the summer of 1919, it quietly expired. Until the end of the year the market was left entirely to itself. During that time rates were rising, and towards the end of January they spurted violently upwards. Industry and commerce were complaining of the increasing costliness of imported raw materials; the cost of living was rising higher and higher, provoking strike after strike in the public services. The

expenses of provisioning the country were becoming daily a more onerous charge upon the public purse.

This was the moment at which the Government judged it necessary to intervene energetically. On January 30th a decree was published establishing a strict control over exchange operations. All traffic in bills and currencies was forbidden, except such as was occasioned by genuine commercial transactions. Bankers, exchange brokers, and all other persons operating in foreign exchange were required to keep a register—similar to that which has been obligatory in France since July 17th, 1917—in which all transactions involving exchange were to be recorded, including sales of Belgian francs abroad. Heavy penalties were provided for breaches of these regulations. Finally, the Exchange Committee was superseded by a Commission consisting of four members nominated by the Government and two members nominated by the National Bank. The majority on this new body, therefore, no longer belongs to the business world, but applies itself in a far more rigorous and systematic spirit to the administration of the regulations, which themselves have been made more strict. The reason for this is that in the more serious conditions of to-day the most energetic measures are required.

It would be premature to attempt to form any estimate of the results obtained, seeing that the Commission only took up its duties on February 9th and that the registers of transactions have only been regularly kept since March 4th. Control cannot be instituted effectively at a moment's notice.

But we may perhaps be permitted to say something of what we anticipate will be the ultimate effect of the measures taken. In this connection it is necessary to emphasise the fact that those measures only apply to one of the elements that exercise an influence on exchange rates, namely, the international movement of capital. If the trade balance, in the strict sense of the term, remains unfavourable—and this it cannot fail to do for some time to come—it will be difficult to effect any considerable improvement in the situation merely by forbidding the transfer of Belgian capital to foreign countries. This is not to say that in the absence of such a prohibition the rise in exchange rates would not be greater still. But if credits were granted to us on a generous scale, if travellers were to flock to Belgium, if exports were to develop more quickly than one dares to hope, and if the harvest were unusually abundant, the measures taken by way of official control would tend to hasten the relapse in rates. However, it would not be possible to attribute to such measures the

predominant part. The experiment which has been made in France since 1917 demonstrates that the Paris Exchange Commission has been unable to prevent a progressive aggravation of the crisis.

In these circumstances, would not a return to freedom be preferable? I think not, for two reasons. In the first place, control enables the struggle against speculation to be carried on with some chances of success, at any rate as regards speculation in Belgium itself. All purchases and sales of foreign currency must, in fact, be entered in the exchange registers. These operations can only be concluded either on presentation of the relative documents (*i.e.*, the invoices), which are then cancelled by affixing a seal, or when they have been expressly authorised by the Exchange Commission. In these circumstances it is possible to track down the purchases and sales effected for pure speculation.[1] We know for a fact that a number of banker's clients who were operating on a large scale in foreign exchange before the introduction of exchange registers have discontinued their operations. This is a direct result of the measures which have been taken. Thanks to the register, it will also be possible to discover whether the market for sterling, dollars, and florins has not been manipulated with a view to a corner, and it will be possible to defeat such manœuvres.

In the second place, the control is intended to prevent the exportation of capital for deposit or investment abroad. Applications to be allowed to export capital are, in fact, numerous and important, and permission is generally refused.[2] In order to reenforce these measures of restriction, arbitrage in bearer securities has been forbidden, and an open forward position is only allowed in the case of securities which are not quoted both on the Brussels and on the Paris market, unless Brussels happens to be the principal market and there is no fear of any considerable secret importation of securities in the ownership of foreigners.

No doubt, the regulations are evaded: but the threat of

[1] Forward deals are not forbidden when they are intended for the settlement of genuine commercial transactions. They are at present carried out in Antwerp without difficulty.

[2] The Commission does however authorise the export of capital in certain cases, as for subscription to increases in the capital of foreign undertakings or for the remittance abroad of income derived from securities deposited in Belgium by foreigners. The Commission also allows the sale abroad of foreign coupons and securities, providing the resulting exchange is made available to Belgium. Finally, it approaches in a liberal spirit all cases in which the economic interests of the country are concerned in other ways than in connection with the course of the exchanges.

confiscation is a much more powerful deterrent than one might be inclined to admit at first sight. If capital were leaving Belgium and being exported especially to France, all our exchanges without distinction would be higher as the result of arbitrage, and bread, cotton, wool, oil and machinery would cost us even more than they do already. The achievement, though partial, is not to be despised.

MAURICE ANSIAUX

BRITISH EXPORTS AND THE BAROMETER—II.

In the last number of the Economic Journal, I called attention to certain regular fluctuations discoverable in the statistics of British exports and their apparent connection with variations of barometric pressure and harvests. I have now obtained further evidence which seems to support very strongly the hypothesis then advanced—of a periodic crisis in the climatic conditions of the earth as a whole which, at intervals averaging about 15 1/3 years, lowers the general productivity of harvests during one or more seasons. This evidence consists of (1) an analysis of the course of food prices in relation to other prices from 1782 to 1913; (2) more comprehensive barometric records; (3) investigation of the course of grain prices and other evidences of dearth before 1782. I cannot deal here with the last of these, but am glad to avail myself of the kind permission of the Editor of the Economic Journal to supplement my previous article by two tables and a brief explanation on the first two points.

Relative Food Prices: The Index Number in Table 1 represents from 1782 to 1865 the fraction

$$\frac{\text{Grain} + \frac{1}{3}\text{ Tropical Food}}{\text{Mean of Copper, Lead, Tin, Iron, and Timber}}$$

from Jevons' Price Numbers; from 1865 to 1913 it represents the fraction $\frac{\text{All Food}}{\text{Mean of Copper, Lead, Tin, Iron, and Timber}}$ from Sauerbeck's Price Numbers. The denominator is thus the same throughout. The numerator changes by the direct inclusion of animal food after 1865: the exclusion of animal food would not make much difference. The "tropical food" is weighted in the earlier period so as to give it about the same relative proportion to the whole as in the second period.

Division of food prices by the prices of articles not directly affected by the harvest should to a large extent eliminate the effect of the credit cycle and other general changes in price level, and should thus (since the demand for food is relatively steady) give a fraction showing mainly the fluctuations in the supply of food, that is to say, in the general yield of crops used for food or feeding stuffs. The Index Number, in fact, shows a marked fluctuation with a succession of maxima (i.e. bad harvests) at 1784, 1800, 1817, 1831, 1847, 1861-2, 1878, 1893, 1909. The last six dates are identical

with those indicated by the "new exports index" discussed in my previous article. The three earlier dates continue the 15-16 year period backwards, with only the trifling discrepancy of 1817 in place of 1816; from other indications I have no doubt that the tendency to divide the 30 odd years into two unequal sections (or usually 14 and 16 or 17 years) is inherent in the cycle itself. In addition to the maxima named above, the index number has high points at 1795 and 1867-8 (each of which can, in fact, be connected with climatic events), but they lie in each case under the line joining the regular maxima on each side.

Generally, this analysis—which I owe to a suggestion of Mr. R. G. Hawtrey—seems to confirm directly and strongly the hypothesis of a general weather and harvest cycle.

Barometric Pressures : Table II compares for each year from 1873 to 1913 the mean barometric pressures at fifty stations in North America and the Eastern Hemisphere, covering most of the habitable globe. In this table three years out of the whole period of forty years stand out as abnormal. They are 1878, 1893 and 1909—that is to say, exactly the years selected as critical by the " new export index" and the index of relative food prices. Their abnormality consists not only in their being actually the years of lowest pressure in the three main world divisions taken as a whole (col. 5); they are yet more clearly marked as the epochs of greatest fall in the barometer from a preceding maximum. These are also years of exceptionally low pressure in each of the divisions taken separately, though particular divisions have also other low years, e.g. India, etc. in 1898, Europe in 1873, 1885 and 1895, and North America in 1885 and 1902. Within each of the main divisions much the same holds. The lowering of pressure at or about the three critical years 1878, 1893, 1909 appears to be a general movement affecting the greater part of the habitable globe; the movements of different regions at intermediate dates often, though not always, cancel one another.

The South American stations (shown in the table) take a directly contrary course, but equally signalise the years about 1878, 1893 and 1909 as critical, by high pressure following a very low pressure.

Before 1873 barometric records are relatively scanty, but again agree with the economic records in singling out the years about 1847 and 1862 as critical. The average of the seven stations for which I have as yet obtained continuous records before 1850 (Bombay, Madras, Cape Town, Brussels, Stykkisholm in Iceland, Toronto and Providence, Rhode Island) gives 1846-8 as years of low pressure with the actual minimum at 1848 and 1862

as the next minimum. The latter crisis, indeed, is peculiar; 1862 is the lowest year on record in Bombay and Cape Town as 1863 is for Adelaide and Stykkisholm, but the Russian stations on this occasion run, like the South American ones, to a high maximum. This and the lack of North American figures make it difficult to construct a satisfactory combined index, but there can be little doubt as to the place of 1862 and 1817-8 in the cycle.

W. H. Beveridge

TABLE I.

Relative Food Prices.

(Prices of Food Divided by Prices of Metals and Timber: 1865 = 100)

Year.	Index Number.	Year.	Index Number.	Year.	Index Number.
1780	--	1825	93	1870	103
1	---	6	102	1	108
2	88	7	105	2	91
3	94	8	106	3	92
4	113	9	108	4	102
1785	98	1830	120	1875	108
6	94	1	129	6	115
7	95	2	116	7	124
8	92	3	102	8	136
9	98	4	101	9	132
1790	108	1835	93	1880	120
1	92	6	84	1	119
2	89	7	96	2	114
3	98	8	100	3	121
4	103	9	118	4	122
1795	121	1840	---	1885	118
6	107	1	109	6	112
7	81	2	102	7	105
8	84	3	114	8	92
9	98	4	120	9	106
1800	130	1845	107	1890	103
1	116	6	111	1	115
2	75	7	138	2	115
3	63	8	114	3	120
4	69	9	107	4	120
1805	83	1850	97	1895	115
6	73	1	102	6	105
7	80	2	103	7	112
8	82	3	93	8	104
9	65	4	107	9	[illegible]
1810	75	1855	109	1900	
[illegible]	63	6	107	1	86
2	102	7	99	2	91
3	115	8	102	3	86
4	76	9	98	4	88
1815	74	1860	108	1905	81
6	94	1	115	6	68
7	131	2	115	7	70
8	125	3	105	8	89
9	111	4	92	9	91
1820	104	1865	100	1910	88
1	86	6	104	1	83
[illegible]	74	7	120	2	77
3	90	8	119	3	74
4	97	9	104		

TABLE II.

COMPARATIVE BAROMETRIC PRESSURES 1873—1913.

(Excess or Deficiency in thousandths of inch on 40 year average)

Year. 1	North America (12). 2	Europe and Mediterranean. (14). 3	Australia, East Indies, Africa, etc. (19). 4	Mean of three World Divisions (cols. 2–4). 5	South America (4). 6
1873	- 7	-21	- 9	-10	- 6
1874	+ 7	+ 7	1	+ 4	+22
1875	- 4	+13	14	- 2	+14
1876	- 8	- 7	- 2	- 6	- 6
1877	- 5	- 3	+27	+ 6	-28
1878	-52	-40	- 6	-33	+ 2
1879	0	-13	-15	- 9	+ 6
1880	+ 2	- 7	0	- 2	-10
1881	-11	- 5	+ 6	- 4	- 8
1882	+ 9	+19	- 6	+ 7	+ 6
1883	+24	+17	- 1	+13	+ 2
1884	- 2	+23	+ 5	+ 9	- 2
1885	- 22	-13	+17	- 6	- 6
1886	- 2	+ 3	+ 4	+ 2	+10
1887	+ 1	-11	+ 2	- 3	-10
1888	+ 5	-13	+13	+ 2	-14
1889	+ 1	+19	+ 3	+ 8	0
1890	+ 9	+ 7	- 9	+ 2	+10
1891	+ 6	+11	+13	+10	- 2
1892	+ 5	-21	-17	-11	+12
1893	-18	-19	12	-16	+24
1894	+ 8	- 1	- 6	0	+14
1895	- 4	25	- 3	-11	0
1896	+11	+22	+ 5	+13	+ 6
1897	+ 6	+22	+ 3	+10	+10
1898	- 1	1	17	6	-12
1899	1	9	+ 7	- 1	-34
1900	5	- 1	+ 5	0	-12
1901	-15	- 9	+ 6	- 6	+ 6
1902	- 23	- 9	+ 4	-10	-26
1903	+ 3	+ 3	- 2	+ 1	+ 8
1904	+18	+19	+11	+13	+ 2
1905	+ 5	+13	+10	+ 9	- 4
1906	+23	- 1	- 2	+ 7	0
1907	+ 9	+19	- 3	+ 8	- 2
1908	+13	+23	+ 1	+11	+16
1909	- 6	-13	- 15	-11	+14
1910	+ 4	-13	- 11	- 7	+ 2
1911	+23	+15	0	+13	—
1912	+ 3	- 5	+ 2	- 2	-
1913	—	- -	+ 4	—	

NOTES ON TABLE II.

The fifty stations included in columns 2 to 5 are as follows:

N. America: Key West, Galveston, Nashville, Mobile, Albany, Washington, Denver, Duluth, Winnipeg, Toronto, Montreal, Sydney (Nova Scotia).

W. Europe: Christiansund, Hamburg, Vienna, Basel, Brussels, Madrid, Lisbon, and Ponta Delgada (Azores).

Mediterranean : Abbassia (Egypt), Algiers, Athens, Beirut.

Russia : Warsaw, Petrograd, Moscow, Archangel, Astrachan, Tiflis, Ekaterinbourg.

Australia : Adelaide, Sydney, Perth.

East Indies : Calcutta, Bombay, Agra, Madras, Colombo, Rangoon, Singapore and Bushire (Persian Gulf).

Far East : Tokio, Tsi-ka-wei (China), Manila, Batavia.

Africa (S. and E.) : Cape Town, Durban, Mauritius and Aden (Arabia).

The South American stations are Rio de Janeiro, Buenos Ayres, Cordoba and Santiago.

The figures for each Division represent the mean of all the stations therein; the figures in Column 5 are the mean of the three preceding columns, thus allowing equal weight to each Division. There can be little doubt that, in fact, greater weight ought to be allowed to Australia, East Indies, etc., whether regard is had to size or total production. This would accentuate the position of the years 1878, 1893 and 1909.

The pressures have been taken mainly from the Report of the Solar Physics Committee (1908) and from Vol. XXI, Part 12, of the Memoirs of the Indian Meteorological Department.

REVIEWS

Macht oder ökonomisches Gesetz? Von EUGEN V. BÖHM-BAWERK. (*Zeitschrift für Volkswirtschaft, Sozialpolitik, und Verwaltung*, XXIII. Pp. 205–271. Vienna. 1914.)

THE obituary of Professor Böhm-Bawerk in this JOURNAL[1] makes mention of a projected work, perhaps never executed. But, finished or unfinished, it seems to be the article now before us, which was printed early in the year 1914, and which deserves our peculiar respect. It is his last original effort. The preface of the third edition of his *History* is dated June, 1914, but by that time the labours of the book must have been long over.[2]

The projected book or article was in his mind in 1909 when he wrote[3]: "I should like to have taken up some recent problems. I should like especially to have filled the gap which I felt and lamented years ago when reviewing[4] Stolzmann on *The Social Category in Economic Doctrine* (1896)." He would have liked to discuss the scope and effects of institutions and social forces and national characteristics as against economic tendencies. Stolzmann in a later book[5] had fancied our author far more rigidly classical than he was. As a matter of fact, Böhm-Bawerk believes in the influence of social forces, and he believes in the influence of economic laws; he does not believe in the omnipotence of either (p. 263). His opponents spoke as if social pressure could do anything and everything; in Burke's words[6]: "The strong hand is the law, and the sole law, in their State." It seemed to them that an overwhelming union of employers or an overwhelming union of the employed could fix and keep prices and wages at any figure they chose.

Economists have denied that either of those unions could be so powerful as to overrule and supersede economic tendencies; but our author thinks that economists even of his own school

[1] December, 1914, pp. 648–50.
[2] *History of Theories of Interest*, 3rd edn., 1914, reviewed here March, 1916.
[3] *Positive Theory of Capital*, 3rd edn., Part I, Preface, p. xvi. 1909.
[4] *Zeitschrift für Volkswirtschaft*, vii. 425.
[5] *Zweck in der Volkswirtschaft*, 1909.
[6] *Regicide Peace*, iv.

have not pursued the matter far enough. It ought to be shown in what measure and in what directions such social forces can succeed and not succeed. The school fully expounded the principle of marginal productivity, or the profitableness to the employer of the last man whom it is worth his while to employ at all. This principle, which gives the unit of wages, is based on free competition; and, if either the masters' combination or the men's combination abolishes competition, the principle will need restatement. Böhm-Bawerk tries to restate it. His whole discussion is interesting, and the latter part of it, which deals with workmen's combinations, is more timely in 1920 than even in 1914.

Under unrestricted competition, he says (p. 232), the marginal value estimated by the employer was the labour of the single workman. If he had a staff of ninety-nine units, he would consider whether or how much he would gain by engaging one man more, or how much he was losing by not having him. This gives us the marginal utility of the labour unit, the increase of product due to the marginal labourer; this would determine the wages of the man, say, *5s.* a day. It would just pay the employer to employ the man at *5s.* The wages of the rest would be that unit multiplied by the appropriate multiplicator, allowance being made for skill and the other elements in Adam Smith's famous chapter (p. 244).

But if the workmen's combination is tight, the employer cannot look at the matter in that way; his staff are no longer a divisible quantity. It is all or nothing. It is a question whether he can carry on his business with the whole staff or not at all, and so it is a question not of final, but of total utility, how much value he attaches to the keeping up of the whole. That will be more than 5s. multiplied by 100. For one thing, labour is (in the language of the school) a complementary article; it cannot be used without raw materials and machinery, any more than they without it. The withdrawal of one man leaves the rest of the complementary factors fairly intact; but withdraw all the men, and these other factors are made useless. The result of gradual withdrawal of men might be an increase of marginal value proceeding from something like *5s. 6d.* to *5s. 9d.* and *5s. 9d.* to *6s.*, till all accommodation by rearrangement of duties or other expedients ceased to avail, when instead of 100 there were only half the number. How much more when all were gone!

If the machinery can stand still with little or no injury, there

is still loss of interest, and there is loss of opportunities for good business. There may, of course, be waste and spoiling of raw material. Other aggravations will easily occur (p. 234).

It is a question for the employer whether he can pay the total asked of him without losing all profit, or even without ceasing to pay interest. When he has made up his mind and agreed to spend the total sum rather than fare worse, he may say the wages per head are now 7*s*. or 10*s*., but he did not reach the total by any consideration of the marginal man (pp. 235, 237); it is a mere after-reckoning.

After this sample of useful spade-work, we may pass at once to the matter of most concern to us in the year 1920, our author's discussion of the "long run." Can the highest wages, not even allowing interest, or even the next highest, simply killing all profit, be maintained permanently—in the long run?

He thinks he is on virgin soil ("Wir betreten hier gewissermaszen literarisches Neuland," p. 243), though most of his weapons are got from his own armoury, the latest editions of his *Theory of Interest*. The reasoning, he says, can only be deductive, all experience hitherto being inadequate and indecisive (p. 248). Even an absolutely universal combination of employers has never existed. He supposes it made, and shows reasons for concluding that there would be a strain on the coalition that would in the long run certainly, in the short run almost certainly, destroy it (pp. 245–8). The nature of the arguments may be judged from those that figure in the case of the universal combination of workmen. The highest claim of the two described cannot be permanent so long as the employer is to remain employer; he would have no motive for running a business that did not even pay interest if there were no prospect of change in his favour, though he might conceivably do so for a short time with such a prospect left possible (p. 249). Even if there be no positive loss, the cessation (or serious reduction) of interest will lead to stoppage in the long run.

To begin with, interest could not be abolished in productive concerns if it were to continue in the loan market and house property. Evidently capital would no longer be lent to productive concerns, and an employer who was working with his own capital would have no motive for renewing it when used up, or for investing more (p. 250).

Interest can only disappear from society if capital is accumulated there beyond all bounds of human desire. Its disappearance would bring the disappearance of saving for investment, not

nearly compensated by the necessary increase in saving for a rainy day (p. 251). But suppose capital offered without interest. The automatic brake upon the extension of the long methods of production would be removed, and there would be a temptation to measureless extension, limited only by the amount of subsistence that must be provided for the workers during the prolonged periods. But this amount is a very finite quantity; and it is evident that there would not be enough, however large the reduction in the standard of living among the employing classes, for an indefinite extension of all businesses. There would need to be a selection of the most productive, brought about by a higher rate of prices for subsistence as well as for their products (p. 253). This means the return of the banished interest. The case demands a greater productiveness of labour than before, which, apart from invention, means a longer period of production, and, to secure economy, a restriction in the numbers employed (pp. 252-4). The employers must raise the production per head and employ fewer men. The discarded or unemployed men will depend on the contributions of their fellows till the latter realise that they are losing more than they gained or the discontented unemployed break the coalition. We should then return into something like the *régime* of competition where the principle of the marginal product led, in theory, to the employment of all available workers (p. 255).

The extreme case has been taken, but before such a consummation was reached the struggling economic tendencies would be too much for the attempt to reach the highest or even the next highest claim (p. 255), and the extreme case would never arise.

Would it be possible for the coalition to secure even such a raising of wages as would mean, not, indeed, an extinction, but a depression of the rate of interest in permanence? (p. 257). If they cannot go the whole way, can they go the half of it? Böhm-Bawerk will not say that there would be diminished saving. The main effect, he says, would be a premium on the longer ways of production; higher wages must be compensated by higher marginal productivity of labour and employment of fewer men. If the working classes were to slacken their rate of increase, in the manner of the middle classes (p. 259, *cf.* 268), the equilibrium might be stable; the high rate of wages might last, no thanks to the force that first imposed it. Men will still follow economic advantage (p. 264) and, whether it be the State or the trade union that prescribes minimum wages, the play of economic motives will go on, and, as he gives us to understand (p. 265), usually

to the undoing of the change. The best case is the not very common case where the pressure stimulates to efforts and adjustments that restore the old productiveness for the employer without upsetting the change of wages (pp. 265–6). This is the only instance where the "strong hand" may be said to have achieved a permanent success, and it is still achieved within, and by means of, economic tendencies. We need not suppose with some pessimists that the rise of wages has hitherto done no more than keep pace with the cost of living; a good part of the rise in the new century has been real, and the question is not settled by a reference to depreciation of money (p. 268). But we may take J. B. Clark's distinction of functional and personal share in distribution and observe that our reasonings relate only to the functional. While there are traceable economic limits to the gain of labour, capital, rent, superintendence, there are no such limits to "the strong hand" where those factors are confused or thrown together. If Government gives land and makes landowners out of workmen, the latter may find their earnings swelled by rent, without limit of time: and if State Socialism makes public property of all the instruments of production, then all capital and land become social property, every member of society getting its share of the produce, as long as this State lasts (p. 271).

Here our author stops. He stops with the unexpected concession that, though economic forces cannot be conquered by coalitions, they may be evaded by Socialism. We are not told what are likely to be the effects of the evasion. In his books he has left his opinion on record that even under Socialism there would be interest on capital and rent of land. There might (we may add) be wages as a means of measurement. But the sting of all would be taken out of them, where private gains were restricted, under Socialism. The old quarrel between Individualists and Socialists comes up once more, with all the arguments on both sides, as old as the Ten Commandments, but not necessarily weakened by age. If we do not go further than the plans of a moderate State Socialism with its nationalisation of land and large capital, where do we stand towards the arguments of the article? The economic motives would still tell, but they would now tell more on the government than on the governed. It remains to be seen if the large capital will be as productive under the new masters as under the old. Unless the industrial system of the country is to consist entirely of losing concerns, use must be made of the distinction between profit and loss. It is a question brought home to us now under our comparatively small

experience of State Socialism during the war and afterwards: How many businesses can Government afford to run at a loss? Protectionism is sometimes declared inequitable because it makes the good businesses bear the burden of the bad. Under a State Socialism that strove to be equitable and frugal there would be some selection of businesses and some selection of workers, to prevent such a result. In our own country the machinery of business is likely to be preserved, and the adjustment might prove after all to be similar to that described in Böhm-Bawerk's article as occurring in face of extravagant wages. Though the State can bear losses much longer than private capitalists, its tax-paying subjects will hardly allow indefinite losses or support the prospect of general impoverishment.

Our immediate practical problem is rather the claim of the workers for co-partnership than the large programme of a Socialistic State. When the workers have made themselves ready and willing to take their share in the management of the business hitherto employing them for mere wages, there need not be of necessity the unstable equilibrium, culmination, and recoil described in the article. The new managers would help to preserve the machinery of industrial government with no greater liability to catastrophes than at present, perhaps with even less. The question for them and for us is therefore how they can best prepare themselves for their new functions and how the change can be most equitably and wisely carried out.

J. BONAR

The History of Trade Unionism. By SIDNEY and BEATRICE WEBB. Revised Edition. Extended to 1920. (London: Longmans, Green and Co. 1920. Pp. 763.)

THIS work comprises a revised version and a continuation of the History which was published in 1894. The reviewer of the first edition pronounced that the high reputation which the authors had already won independently of each other was sustained by their co-operation—then a new phenomenon. The second edition sustains a still higher *reputation*: that which has been earned by the collaboration of the well-matched consorts in many works of research and reflection during more than a quarter of a century.

In the new portion of the present volume, as well as in that which is reproduced, we admire the literary skill which has constructed a clear and impressive narrative from materials that

are often deficient in personal interest and striking incident. The collection of recent facts does not, indeed, display the writers' talent for historical research so signally as did the earlier History. But if the task is less difficult, it is not less useful. It is convenient to have clear and succinct summaries of occurrences which, though they have passed before our eyes, dwell confusedly in our memories. We may instance the enumeration of the various occasions on which Trade Unionism has been recognised and employed by Government since the outbreak of the War, or the description of the so-called "black-coated proletariat" who are joining the ranks of the trade unionists. The recent history is often supplemented by information and reflections contained in previous writings to which a reference is given by the authors. Witness the elaborate study on "Professional Associations," which appeared in the *New Statesman* of September 25 and October 2, 1915; April 21 and 28, 1917.

Nor is antiquarian research wanting in the additions to the volume. The authors have utilised some Home Office papers relating to the early part of the nineteenth century, which have become available since the publication of their first edition. Thus, they have traced the "Trades-Union" movement of the 'Thirties back to the "General Union" which existed in 1818.

For our part, we are grateful, not only for the additions to the original work, but also for the retention of passages such as those relating to Owen who, it is confessed, from the point of view of the practical statesman, "showed himself something of a simpleton." When it is recorded that he expected the "New Moral World" to be established within six months, competition to be abolished and the change from the capitalist system to a complete organization of industry to "come suddenly upon society like a thief in the night," these things might almost seem to have been written for an example to hotheads of the present generation.

More explicitly in the newer part of the volume, the authors dissent from the extreme sect who would place the entire management of business in the hands of associated producers. "This conception seems to us," they say, "too one-sided to be adopted in its entirety, or to be successful if it were so adopted." In this connection there should be consulted one of the previous writings to which the authors refer: *What Syndicalism Means*, by S. and B. Webb, 1912. We regret that this instructive brochure is not more widely known and read. It is accessible only—so far as we have observed—in a French translation which is to be found in the Library of the British Museum, under the title "Examen

de la Doctrine Syndicaliste." The danger of producers abusing their monopoly to the detriment of consumers is exhibited here more fully than in the History. Life, we are reminded, is not all production. "A great part of the most precious services that we render to the world, even during our working years, has nothing to do with the production of wealth properly so called"—such as the education of children, the cultivation of the mind, the works of art. Inventors and artists do not always run well in harness. The folly of the "general strike," the tendency of "sabotage" to degrade the character, the impossibility of abolishing wages, otherwise than in name—these and other salutary truths are taught more persuasively here than in treatises which might be suspected of "capitalist" proclivities.

This criticism of thoroughgoing syndicalism was not demanded in a history of (English) Trade Unionism. That it is not repeated at full length does not argue any *suppressio veri*. But there is one omission which is characteristic and, we fear, designed. We desiderate some allusion to the important truth which Dr. Marshall has lately expressed in these words: "Even the most advanced schemes for National Guilds, seem to ignore the fact that the State has been a borrower rather than an accumulator of capital; and to take little account of the superhuman ability required on the part of those persons in whom the chief functions of 'The State' are to be concentrated when called on by a guild to advance more capital in order to replace some that has been lost in an ill-fated venture, or to enable some new venture to be put through." (*Industry and Trade*, p. 65, and context.) He who is impressed with this truth will not be in such a hurry as our authors to bring about what they tell us is "the object and purpose of the workers organised vocationally . . . and politically . . . namely, a reconstruction of society by the elimination from the nation's industries and services of the Capitalist Profit-Maker."

The historian can hardly be expected to put a favourable construction on the doings of a class which he wishes to eliminate. Our authors in their account of the great battles which Trade Unionism has fought in recent times—over the Taff Vale case and the Osborne case and in the great Railway Strike—are naturally not very kind to the faults of the Capitalist party. They shower disparaging terms upon the judges and rulers concerned in these transactions—"quibbling," "evasions," "equivocation," "flagrant unfairness," "heat and prejudice," "animus and partiality," "amazing degree of class bias." . . . We dare say that some of

these terms are applicable; but we should be surprised if it proved that they were justly applicable only on the one side, as our authors leave us to suppose.

We recognise that the interpretation of human action involves an element of hypothesis. Acts can hardly be recorded in a literary form without assigning motives. Motives cannot be inferred so rigorously but that the inference depends partly on *a priori* assumptions—one's general view about men and things. At the tribunal of history, historians must sometimes appear as advocates. It is a part which they may play usefully if the reader plays the part of judge. We trust that some of the Trade Unionists who, as advertised by the publishers, have already bought up 19,000 copies of the History, will endeavour to "hear the other side" presented by historians comparable with our gifted authors in diligence and talent and the art of persuasion. Writers who fulfil these conditions are, indeed, not easily to be found.

F. Y. EDGEWORTH

International Economic and Financial Problems. By Dr. G. VISSERING. (London: Macmillan and Co.)

No one is better qualified than Dr. Vissering to examine the economic difficulties of Europe and to suggest remedies. As President of the Netherlands Bank he is in a position to consider the situation from an impartial point of view. He was also formerly President of the Java Bank, and in 1911-12, at the request of the Four-Power Syndicate, was appointed Monetary Adviser to the Chinese Government, and in both capacities he had experience of finding methods of introducing means of financing foreign trade for countries whose internal money was too disorganised to furnish easily any system for the payment of imports.

The present situation in many countries in Europe furnishes in some respects similar problems, though on a much greater scale. Domestic monies are enormously depreciated, for the double reason that, on the one hand, imports are urgently needed, and exports, for the time being, scarcely available; and, in addition, the various Governments are still issuing more and more paper money. The result is that, although in Germany, for instance, prices in marks are nominally very high, yet, when converted into the currency of other countries, German goods are very cheap, and in Germany foreign raw materials are very dear, and can hardly be obtained.

It would be a mistake to attempt, in a brief review, to give an account of Dr. Vissering's proposals. It can only be stated, roughly, that they involve international co-operation for advancing substantial credits, the organisation of clearing-houses, or "barter institutes," through which the foreign trade of the countries which are in difficulties is to be financed on either a gold basis or, at any rate, a special kind of money, so that those who give credit are not dependent on the vagaries of marks, crowns, etc., which have been multiplied to excess by reason of the difficulties of internal finance.

In the author's view, indispensable conditions for success are cessation of further creation of artificial buying power, revision of debts and of the indemnities, international co-operation for considerable extensions of credit, and modification of the power of the *Commission des Réparations* to seize property or goods ready for export.

These are formidable requirements, and it is clear that the conditions are not to be obtained without a great deal of persuasion. Without, therefore, implying any serious dissent from the author's main intention, one must look critically at the reasons put forward in support of the contention that so many difficult conditions are necessary.

That the present conditions, in the defeated countries especially, are very distressing, and make an appeal to human sympathies, will doubtless be readily conceded by readers of this JOURNAL. To convince people, however, as Dr. Vissering seeks to do, that the self-interest of the more fortunate countries is deeply involved, is much more difficult. The "Entgüterung," for instance, or buying up of all kinds of portable goods in Germany, and even of real property, by Swiss, Dutch, Scandinavians, etc., who find that they can obtain very good bargains owing to the low value of the mark, does not strike one as being the point to bring out so strongly if the appeal is to be based on the economic interests of the countries named. "Large quantities of superfluous merchandise are thus purchased from sheer bargain-hunting," we read (p. 51), but we find it difficult to believe that Dr. Vissering's countrymen usually obtain only a gross of green spectacles.

Looking at things from a long-period point of view, however, economists will agree that the business interests of the outside world are not promoted by the continuance of a state of things which keeps whole countries in the position of bankrupt businesses which cannot get out of a rut of hand-to-mouth

expedients. The first necessity, and, the reviewer would suggest, the main thing, is that the Governments in all the countries which have very depreciated currencies should exercise control over foreign trade, both export and import. Mere competition means that everyone in Germany or Austria who buys any foreign commodity depresses the value of the mark or the crown, and makes it more difficult for others to buy anything, and everyone who sells German or Austrian goods under competitive conditions does something to depress their price. This is also the case in ordinary circumstances, but it has not ordinarily any great importance. In the peculiar conditions which have now come about, however, this truth is of very great importance. If the German and other Governments were in a position to allow importation only on some system of priority certificates, and to arrange that goods should be sold abroad only on a gold basis and at approved prices, and that the credits so created should be earmarked, in the first instance, for the payment of debts due to importing—without reference to any alteration which might occur in the value of the mark, Austrian crown, etc.—then credits for the necessary imports would be forthcoming without the assistance of foreign Governments. Some such system appears to be suggested by Dr. Vissering, but his exposition seems to imply rather a formidable amount of Government intervention, not only in Germany and Austria, but in all other countries. We read, for instance (p. 51): "The simplest form will be that two countries set up such a barter institution between them. Take Germany and the Netherlands as an example. Germany would have to prepare a list of the goods she wishes to buy, and the Netherlands would state the quantities which they would eventually be able to supply to Germany. Germany would, further, have to furnish a list of what she could deliver immediately. . . . All these inquiries and offers will have to be registered at the Barter Institute." It is not very clear why anything more than a system of priority certificates for imports into Germany, and control of the prices of exports, should be necessary.

The countries which have claims on Germany for indemnities would have to consent, of course, to the proposed system of certificates and to the earmarking of credits. Dr. Vissering puts strongly the argument that their interests require them to take a long view and to assist in the recovery of the countries which are in difficulties. There is one important point, however, which might have been emphasised, more especially as appealing to

France. That country has especially strong claims for indemnification, and, for the moment, it may seem to be France's interest to be able to buy German goods cheaply, whereas the proposal would raise the export price of German goods measured in foreign monies. That, it is submitted, would be an advantage, in the end, and not a disadvantage, to France, because German goods will be sent chiefly, as a matter of fact, to other countries, and France requires mainly the produce of other countries rather than the produce of Germany. If France has a lien on a portion of credits created by the sale of German goods to America, the Argentine, Holland, etc., France has a better prospect of getting substantial value if those credits are large and provide a good surplus over and above what is required to pay for Germany's necessary imports, than she would have if competitive selling for depreciated marks always keeps the total value, in foreign currencies, of German exports at a very low figure. The same argument applies, though perhaps not to quite the same extent, to the interests of Great Britain, and it need hardly be said that it could also be reinforced, for popular propaganda at least, by the consideration that Germany would, under the proposed system, provide her own law against dumping cheap manufactures into competitive countries.

The cessation of further multiplication of paper money by all countries is strongly urged, but it is not altogether clear that that is essential to the success of the system proposed, so long as there is control of foreign trade. Even in this country it still remains to be seen whether the maximum announced for the fiduciary issue can be adhered to, and it may be a considerable time before many Continental countries can manage without the printing press. It ought to be possible, however, to arrange for the financing of foreign trade on a basis independent of the depreciated internal monies. That, indeed, appears to be what Dr. Vissering proposes.

If, as suggested above, the two great difficulties—inducing the more fortunate countries to advance large Government loans, and the less fortunate countries to cease issuing more paper money—can be overcome, the other requisites appear to be such as ought not to be impossible of achievement. The principal difficulty is the fact that democratic Governments in France, the United States, and our own country, who are the predominant factors, cannot easily take long views regarding their late enemies, because it is difficult to make them understood by the average voter. The indications are, however, that such views

are making headway, and the practical stumbling-block may turn out to be the inefficiency of administration in the late enemy countries.

C. F. BICKERDIKE

Politique Financière d'Aujourd'hui. Par GABRIEL DE MONTGOMERY. (Vevey: S. A. Klausfelder. 1919. Pp. xiv+402.)

THIS book has earned the compliment of a preface from Professor Pareto, which casts, as we should expect, bright illumination into the dark tangle of intertwined phenomena. It is "chiefly" concerned with the "financial and economic situation" of Switzerland in the "great drama" that has filled the European stage during the eventful years from 1914. Writing in December, 1918, the author observed that "probably" we were witnessing the "last act" of what could be described as having wrought an "economic revolution." That was marked by "*bouleversements*," which were "formidable" and, before the war, would have been "incredible." Much of their final significance, he added, remained hid; and he himself modestly proposed to throw a "little light" on obscure points in questions often discussed. Switzerland was chosen for the starting-ground of this inquiry as a "neutral" country in the "centre" of Europe girt about on "all sides" by the "belligerent States."

It is a useful office which has thus been opportunely undertaken; and the achievement justifies the essay. In succeeding chapters the possible aims conceived and the actual policy pursued, the series of vicissitudes developing and the varied consequences that have happened or may yet occur, are searchingly explored. They are also judicially appraised. We have, then, here from an economic student belonging to one neutral State a full and fair survey of the conduct and the destiny of the rulers and the public of another neutral country at a critical time in such departments of affairs as the course of the exchanges, the handling of currency and credit, and the provision of the ways and means of national expenditure, largely, suddenly and compulsorily increased. But in his close scrutiny of the successes and the failures of the Swiss our author refers as well to the behaviour and experience of other peoples. Naturally, he contrasts the position of his countrymen, the Swedes, raising what he describes as a "barrage" against gold, with the strong industrial demand for that metal for watch-manufacture acting in Switzerland as a potent check to a fall in its value. But he also compares our own use, at the beginning of the war, of the traditional expedient

of a rise in the rate of discount with the employment by the Federal authorities, in their negligent regard of that defensive weapon, of more drastic and direct but less commendable and innocuous armoury, safeguarding by the "main force" of peremptory advice or condemnatory veto the metallic backing of their note and credit system. Allusion, too, is made, as opportunity affords, or occasion prompts, to what has been thought or done in France and Germany, the near belligerent neighbours of the neutral land immediately inspected; and, accordingly, the treatise has a wider interest than might be inferred from its subtitle. Within the limits suggested there it is significant that in not a few respects a by-stander, like Switzerland, has been compelled to share the fate, and follow in the track, of the combatants—in modes, for example, of finance that have been responsible for "inflation." In other regards her situation has been peculiar, especially, as Mr. de Montgomery shows, from the circumstances that she normally imports the necessary raw materials for the manufactures, largely luxuries, which she exports, that her hotel business was hit hard by the interruption of the ordinary tourist traffic, and that the great amounts of foreign capital, which had been invested before the clash of arms in her negotiable securities, could be quickly withdrawn with ease by the fighters, and, advantageously to themselves, subscribed to their war loans, gaining at once through the advanced exchange and the higher interest.

The clever and informed writer of this interesting and timely essay is more ambitious than we have as yet suggested. For in his discussion of Swiss finance and economics he introduces hard cruxes of theory as well as practice. He boldly breaks a lance with doughty disputants in some tough controversies. Not merely does he consider which of three possible policies a neutral country should adopt with reference to the exchanges. It could, he says, accept depreciation to the lower level reached by the belligerents, or it might strive to keep a parity with gold, or, finally, as he would, for strong reasons, recommend, it may endeavour to maintain for its own money the character of a stable indicator of the values of goods. Not only does he establish, as we think, the fact, in contradiction to some positive pronouncements, that the rate of discount did not become inoperative through disturbing or obstructing influence engendered by the war. It might, on the contrary, be still used, to good purpose, by a neutral, so as on the one hand to arrest the forced export of its wealth or capital in response to the clamorous temptation of needy

belligerents, and, on the other, to avoid subjecting its own traders, its manufacturers or its merchants to excessive disability. But, while laying stress on variations of values as the more potent of the causes of fluctuations in the exchanges, he also proves once again how troublesome it is to disengage from other forces, such as the "penury" of "merchandise," the monetary factor in a rise of prices and to measure with nicety its magnitude; and, furthermore, he seizes courageously the horns of the dilemma presented by the inclusion in, or the omission from, the calculation of the "money-work" to be done of payments for "productive" and "unproductive" services.

Even more daring, it may be, will be considered his criticism, supported nevertheless as it is by cogent argument, of the shortcomings, from the standpoint he takes up, of Ricardo's plan for an "economical and secure" currency; and the conception, which he favours and describes, of international settlements to be made in international paper is not lacking in temerity, though it is shrewdly formed and lucidly presented. It is, however, to be observed on this last matter that Mr. Walter Leaf, in his recent presidential address to the Institute of Bankers, did not regard with entire disfavour the creation in the existing "economic crisis," with the "chaotic state of the exchanges throughout Europe," of a "machinery for the barter of goods" "in the form of an international unit of exchange based on gold," which would be a "purely book currency not represented by any coins." That would, this accomplished scholar and practical banker recognised, be "following the lines of the old 'mark Banco' of Hamburg," which, serving "for about a century as a common unit for the whole of the petty German States," "only came to an end on the establishment of the common German coinage in 1872." The "proposition," which was "serious," he remarked, "came from" Swedish bankers, and was a "most interesting theoretical idea," time spent "on which would not be wasted" by the "man of business" who "must in the last resort say the decisive word"

Such are a few samples of the difficult and important topics of vexed debates grappled here by Mr. de Montgomery. His readers may not, of course, agree with all his reasoning; and they will probably dissent from some of his conclusions. But they will, we have little doubt, judge him to be a "foeman worthy of their steel." The results he reaches are often perhaps more negative than positive; and, in the end, sometimes, he leaves us with the discomforting persuasion that the knot approached was tied tighter than we had thought before we came in his company

to close quarters with it. But his resolution and address and resource in attack are admirable. He has, it will be evident, studied carefully what had been written previously, and he applies an open but wary mind to the new lessons taught by the fresh facts. He has, in short, furnished a contribution of much interest and value to the economic literature of the war; and we offer him our thanks. To Professor Pareto's preface we cannot make detailed reference, but we would draw attention to one hint. He suggests that, if the issue of inconvertible paper be viewed as a forced loan, Governments, in practice, have shown themselves not very squeamish in scaling down their unacknowledged indebtedness in this shape by allowing such money to depreciate through over-issue. They have, as a rule, by contrast, exhibited more prudent scruple in avoiding formal repudiation of the more definite obligations of avowed funded or floating loans, to which contribution has been publicly invited. This distinction we do not remember to have seen before so clearly drawn or pertinently exhibited.

L. L. PRICE

Social Theory. By G. D. H. COLE, Fellow of Magdalen College, Oxford. (London: Methuen and Co. 1919. Pp. 220.)

MR. COLE'S whole life would appear to be a protest against the doctrine of restriction of output: his realistic studies and speculative essays succeed one another with almost bewildering rapidity. But his facility has not prevented him from presenting, in the modest compass of some 200 pages, a singularly compact and suggestive exposition of his general views on human society. Any comment on it made primarily from an economic standpoint must of necessity be somewhat unfair; for Mr. Cole's scope, embracing as it does all forms of human association, is much wider than economics. Indeed, he contends with much force, in criticism of Marxian materialism, that *it is only the diseased nature of the economic system which, by perverting and poisoning relations outside the economic sphere, leads to a disproportionate emphasis being laid on the economic aspects of life.* Here, as elsewhere, Mr. Cole exhibits a discrimination of means from ends which is not the least refreshing feature of this book. This being so, and the whole book being so laudably concise, it would perhaps be unfair to take him to task for not explaining more precisely what he means by that "economic equality" to whose absence he attributes the ugly prominence of the economic

bump in society; or for not stopping to argue with those members of the social hive (to adapt a phrase of Professor Edgeworth's) who are apprehensive lest the equilateralness of the honeycomb should be secured at the expense of the abundance of the honey. Nevertheless, it must be put on record that Mr. Cole's realism, which permits him to discuss armies and judges and policemen calmly if without approval, as things with which his reconstructed society will have to reckon at any rate for a time, appears to fade when he touches economics into an idealism which assumes, as a pre-requisite of that society's very birth, that the chief economic disharmonies have been completely resolved.

Mr. Cole's general system is, as any sensible system must be, largely the product of an intelligent eclecticism. Rousseau provides the groundwork and touchstone of individual personality and will; Samuel Butler tinges with purposiveness the evolutionism of Marx; and many others bring duly acknowledged gifts. But the largest contribution is, of course, that made by what may be termed Neo-Mediævalism—the Gierke-Maitland theory of the nature of corporations, and the functionalism of de Maeztu, and those doctrines of Guild Socialism which Mr. Cole himself has done so much to elucidate. For his central position is that most modern social theory has gone wrong in regarding the State, if not as the sole, yet as a unique and dominant form of human association. He reminds us that that part (which is not the whole) of human life which is organisable can be, and actually is, organised in many other kinds of association besides the political: and among these are some which must be considered essential to human society, notably the religious kind and the two economic kinds, which he calls "vocational" and "appetitive," embracing men respectively in their capacities as producers and consumers. If liberty is to be real, if representative government is to be anything but a farce, mankind must seek delivery in this multiplicity of co-equal and co-ordinate associations from the tyranny of the "factotum State." Outside Mr. Cole's inviting edifice of scholarly synthesis and original suggestion only Professor Bosanquet and the Hegelian idealists stand in outer darkness, with their blind dethroned monster.

And yet—can we be so sure? The Sovereign State is cast out; the functional associations are at work; and the sphere of political organisation has been limited to a certain complex of personal matters which is not very clearly defined, but which appears to include marriage, elevation to the peerage, and

vaccination. But, as Mr. Cole sees, the need for co-ordination remains, and even the need for coercion or the delimitation of coercive powers. Who is to co-ordinate? Not the truncated State, for it is itself a potential co-ordinand. There must then be a new joint body with supreme co-ordinating and coercive authority. Now Mr. Cole seems aware that this suggestion lays him open to the criticism that he has expelled the State by the door only to re-admit it through the window; but he appears to be satisfied that he has disposed of this criticism by pointing out certain important differences between his joint body and a vocational second chamber as ordinarily conceived. It is difficult to regard this as convincing. One cannot but feel that if the plain man were asked to find a convenient word for a co-ordinating and coercive apparatus, with control not only of the "whole paraphernalia of law and police," but of Army, Navy and Air Force, the word "State" is one which would leap to his mind; and that he will be inclined to suspect that new "democratic Supreme Court of Functional Equity" is but old State writ large.

It would, I think, be a real pity if this rather mystifying piece of iconoclasm and iconoplasm were allowed to obscure the genuine element of truth and value in Mr. Cole's principle of functional organisation. Almost everyone agrees that the modern political machine is unwieldy and overworked; and many people are growing to think that the necessary redistribution of work, especially work of an economic kind, should be functional as well as regional. Except to incurable sovereignty-hunters, does it make so much difference whether the requisite process is visualised primarily as devolution or as co-ordination? As Mr. Cole himself so admirably argues in the analogous matter of regional federation, the question is chiefly one of method and dependent on our starting-point; and, after all, our starting-point is the twentieth century and not the thirteenth. The important thing, surely, is to get on with reasonable experiments in functional organisation and control, without complicating the issue more than need be by a State-hatred which may become as metaphysical and inconclusive as the State-worship of the poor ultra-Hegelians on the door-mat.

D. H. ROBERTSON

Securing the Initiative of the Workman. By ROBERT B. WOLF, M.E. (*American Economic Review*, Vol. IX., No. 1. Supplement, March, 1919.)

Non-Financial Incentives. By ROBERT B. WOLF. (American Society of Mechanical Engineers. 1918.)

Modern Industry and the Individual. By ROBERT B. WOLF, M.E. (Reprinted from *System*, January and February, 1919.)

THE writings of Mr. R. B. Wolf, scattered among the publications of American scientific societies and technical journals, are at present little known in this country, but it is to be hoped they will become more easily accessible, for they contain much that is suggestive, and might be helpful in the present critical conditions of industry. Mr. Wolf, a member of the American Society of Mechanical Engineers, and manager of a pulp and paper-making works, contends that the present labour unrest is due to repression of the creative instinct in the workman. Modern industry "is primarily concerned with individual effort"; the creative power which sustains our civilisation resides in the "originating, selecting, and adapting faculty of the human intellect"; and (here is a fundamental point) the creative faculty is not confined to a few individuals in charge of our industries, but is common to all mankind. Under the modern disposition of things, however, industry is controlled by a few persons whose contact with the actual work becomes increasingly remote. The majority of workmen are employed on processes which require little or no thought, and they are prevented from using their brains at their work. Just so long as this continues, Mr. Wolf avers, we shall have industrial unrest. The workers' higher faculties are left unused, with the result of discontent, reduced output, or sabotage. The creative faculty cannot be really suppressed, it is deflected into useless or destructive channels.

It is easy to agree to this diagnosis of the malady, but much less easy for the ordinary observer of industrial evolution to see where the remedy is to come from. Modern industry, with all its evils, is necessary to the modern world, and we cannot go back to the Middle Ages, although we may recognise that their institutions were in some respects socially more desirable. Mr. Wolf, however, asserts, with a wealth of practical experience to back his theories, that creative work *can* be done in modern industry, and that the best results in production are to be obtained, not by the subjection of the individual, but by calling

his will and intelligence into activity. The problem of social organisation is "how to organise society upon the basis of respect for the individual." The well-worn illustration of the policeman controlling street traffic is given a new and happy turn by the remark that the traffic at each crowded city crossing cannot be regulated from the City Hall; it requires an individual in the congested spot to deal with each practical situation as it arises, "and upon his powers of observation and selection depends the orderly flow of traffic." A description is given of the results of introducing progress records into a certain process, known as the sulphite process of the wood-pulp industry. The wood chips are "cooked" in huge "digesters," 50 ft. high by 15 in. diameter, by the use of steam pressure. Skill in "cooking" consists in the proper control of the relief valve, and the aim is to secure the maximum yield from the wood used and a uniform quality of pulp. Both these ends were materially furthered by a systematic and detailed publication of costs for the workmen's information. The men thus got a clearer view of what they were doing, of their own progress, and of the work as a whole. Their interest was evoked, their pride in production stimulated, and, what is more, their minds were set to work to desire new and improved methods and mechanical devices.

We are, of course, familiar in this country with schemes for democratising the control of industry, but it is something of a novelty that so powerful a plea should come from the employers' side. It is also interesting, in view of Labour opinion on the subject, to note that the system does not involve "payment by results." On the contrary, salaries and wages on this plan are all on a monthly, weekly, or hourly basis, and arranged in concert with the labour organisations concerned.

The value and originality of these papers consists in the new significance given to the psychology of the worker, and also in what may be described as the ardent practicality with which the idea is worked into the technical details of the industry.

B. L. HUTCHINS

National Guilds and the State. By S. G. HOBSON. (London: G. Bell and Sons. 12*s.* 6*d.*)

THE Industrial Guild ideal is attractive to people whose outlook on life is widely divergent. It appeals to the revolutionary syndicalist, to friends of handicraft, and to many who desire to see the industrialism of to-day transformed so that it shall function

more satisfactorily educationally and economically. It is a mild term, and does not suggest either bloodshed or barricades: its goodwill is, therefore considerable.

What is the explanation of this catholicity of support and sympathy? It surely must be that the ideal does not mean the same thing to different people. It is all to the good, therefore, that the chief apostles of the movement should elaborate their theories and plans. In Part I. Mr. Hobson seeks particularly to show the relationship of the Guilds to the producer, the consumer, and the State.

Part II. deals with the transition issues, and finally gives us Mr. Hobson's creed under the title of "I believe." Whilst commending Mr. Hobson's industry in seeking to clear up difficult points, one must confess to a feeling of disappointment. The author appears to think it sufficient on important issues to give us his dogmas without supporting evidence. Faith should not be a substitute for truth in human affairs, but founded on it. For example, in dealing with the problems connected with the producer or worker, he says:—"The solution can only be found in one direction, and that the most natural: in the control of the workshop by the workman himself. With that end attained he will know from bitter experience how most humanely and therefore most fruitfully to order, to change, or to abolish workshop routine. When the craftsman reaches that stage, he will be in a position to refuse to produce commodities whose poor quality offends his self-respect; he will indignantly reject any and every form of adulteration. Whatever he produces will be carefully calculated, and even guaranteed, to be the requisite standard and quality."

Mr. Hobson would agree that one of the justifications for faith in the far-reaching changes he proposes is that the assertions made in the paragraph quoted are true. They are *key* assertions. One searches the 400 odd pages in vain for evidence supporting any one of them. We are told that Guilds are the logical outcome of wage abolition, and that this means that the proletarians, by securing a monopoly of their labour, have determined that they will no longer sell it at a commodity valuation. They are to have "pay—pay, not wages, observe, please."

What does this mean?

In reply to the suggestion that when each Guild has secured the complete monopoly of the labour involved in carrying on the "function" for which it is responsible, there might be a clash

of interest between the members of one Guild and another. Mr. Hobson says:—"If I make cotton goods, I want machinery, coal, buildings, labour . . . . If the element of profit be eliminated, and I know that these commodities are at my disposal at cost price, in what other way are our interests opposed?" It would seem, then, he naively adds, that objections to Guild theory "melt away under examination." What does "cost price" mean in this connection?

A not inconsiderable part of the book is devoted by Mr. Hobson to combating the point of view of his fellow-Guildsman, Mr. Cole, in regard to the State as representing the consumers, and the Guild Congress as representing the producers. Apparently Mr. Cole has been influenced by the "misapplied activities of the Fabian Research Department," and advocates "a system in which the right of the producer to control production and that of the consumer to control consumption are recognised and established." Mr. Hobson finds it "impossible economically to differentiate" between the two processes of production and consumption.

Mr. Cole, by way of illustrating his position, "supposes the State, as the representative of the consumers, to be dissatisfied with the price charged for pots and pans; the appropriate department would complain to the Guild representing the sheet metal workers. The answer comes back that the high price is due to the charges of the Iron and Steel Guild for tin plates; the State next takes up the matter with the Iron and Steel Guild, then, failing satisfaction, to the Guild Congress, and, if necessary, to a joint section of State and Congress."

Mr. Hobson is not unnaturally alarmed at this circumlocution, and says: "If Guild organisation were incapable of settling such a trivial problem, its personnel would be unequal to the task of administering a hardware shop, not to mention a Guild." Might it not be well for both Mr. Cole and Mr. Hobson to try their theories on the "hardware shop" scale of enterprise first, and reason up to the larger proposals from that experience? After all, one can get a fair knowledge of the conduct of bees without having under observation all beehives in the kingdom.

Mr. Hobson seeks to establish ultimately for each "function" a Guild having a complete monopoly of the labour interested, the material of all the Guilds being vested in the State. In this connection, we are given no evidence drawn from experience as to how monopolies of this kind behave. Human nature may have

changed and be changeable, but historical records would surely throw some light on the subject. Man does not so much differ from his ancestors as to lead us to suppose that, under substantially the same temptations and opportunities, his conduct would be fundamentally different.

As a preliminary to the formation of sound conclusions concerning the National Guild proposals put forward by Mr. Hobson and his friends, should we not have before us the results of a careful and scientific examination into the doings of Guilds, or associations approximating to Guilds in the past? How did they behave towards the then new ideas, the application of which has since changed the face of the world? Why did they come to an end? We do know, for example, in the case of the great inventor James Watt, that although there was no other mathematical instrument maker in Glasgow in 1756, the Corporation of Hammermen refused permission for him to settle there, not being the son, or son-in-law, of a burgher, and not having served his apprenticeship to the craft within the borough. Fortunately, the University of Glasgow stepped in and made him mathematical instrument maker to the University, and provided a workshop in which he could give play to his genius. It is a question of profound importance as to how far these attempts to dragoon men into organisations, whether capitalistic or labour, are anti-social in their effects.

It is true that large numbers of those who sympathise with the ideal of Industrial Guilds (included in which is the reviewer), desire to advance by experiment and reason. On the other hand, it must not be overlooked that at the other extreme there are those prepared to use the strike weapon, to gain control over industries. Workmen who dislike the use of trade organisations for this purpose are nevertheless impelled to remain members on pain of being treated as "blacklegs," concerning which Mr. Hobson's fellow-Guildsman—Mr. Cole—says: "It is not, as a rule, wise to offer physical violence to blacklegs; but there is nothing wrong about it except in the eyes of the law and middle class. The only argument against it is that it does not pay!"

The members of the National Guilds under such inspiration would probably not have a very deep and abiding love for freedom. There is suggested the adoption, in regard to industrial questions of to-day, of the methods in vogue in the dark ages for securing uniformity of opinion.

It is difficult to understand upon what the confidence of Mr.

Hobson in the wise and beneficial conduct of the monopolies he would create is founded. A more hopeful way of advance would seem to lie in the direction of providing increasing opportunities for the new spirit to express itself in developing constitutionalism in industry. Is not partnership, rather than monopoly, the key-word, if there be one in industrial as well as international problems?

HENRY VIVIAN

Empire and Commerce in Africa. By LEONARD WOOLF. (Labour Research Department and Allen and Unwin, Ltd., London. Pp. 368.)

THE Labour Research Department is rendering a great service to the Labour movement and to the general public in facilitating the publication of such a volume as this, which, although, perhaps, rather dull in places, and stressing too strongly the culpability of the few in authority, nevertheless does attempt to bring within the realm of general discussion that most important aspect of a nation's affairs, its foreign policy.

This work is a historical study of "economic imperialism" as applied to North, Eastern and Central Africa, in which, starting from the basis that the State, since 1880, has been the power of the community organised, consciously or unconsciously, for the pursuit of economic interests, and claiming that the "Chamberlain" conception of "commerce as the greatest political interest" has dominated foreign policy, the writer contends that recorded history reveals the "logic of beliefs and ideals" and not of "facts and events," and that only by a change of outlook can past evils be rectified. This contention fails to appreciate that "facts and events" react on "beliefs and desires"—for instance, environment—and to that extent possess a logic of their own. One would have thought that a *soi-disant* Socialist would have seen that his premise was modified by the natural laws governing evolution, and still more by the fairly general Socialist assertion that a man's outlook is moulded largely, if not entirely, by his surroundings; for these surely are "facts."

Further, the reluctant pessimism which sees little hope for real improvement until a universal change of mind has been accomplished scarcely becomes a "Labour" writer and a democrat; for it is unlikely that the desired "social revolution" (of mind)

will precede the return to power of a Labour Government. We are thus confronted with the proposition that real democracy in foreign policy is, at present, impossible, and that what is needed in this, as in other realms of government, is a statesman who shall formulate and materialise the unexpressed impulses of the people. But this is rank individualism and conservatism!

Since the French conquest of Algeria in 1830 the ideas of "sentiment and strategy" that governed early expansion have been succeeded by the desire for (1) colonies for surplus population (up to 1880 90); (2) colonies of exploitation (after 1890). The real race for the partition of Africa began in the decade 1880–90, since when (up to 1914), to the British Empire three and a quarter million, to the French four million, and to the German one million square miles have been added.

The writer details the succession of events leading to the absorption of Tunis by the French, of Tripoli by the Italians, of East Africa and Somaliland by the British, Germans, French and Italians; and outlines Abyssinia's struggle to preserve her independence. European policy seems to have been dictated by three main assumptions: (1) A European is not under his country's control; (2) nevertheless he is to be protected; (3) one nation's gain is another's loss. The work of explorers like Stanley and Peters; treaties with the natives embodying concessions wrung from the natives by the oppression of their rulers, followed by risings and by the excuse for armed intervention and conquest to restore "law and order"; the granting of rights to Chartered Companies, through which influence can be exerted over Governments by financiers; these and other methods of penetration have characterised the European invasion; and to-day, in British East Africa, for instance, no black man has any legal title to land or property, the native is restricted to his "reserve" (the best land having been taken by the settlers), indentured labour is prevalent and illiteracy maintained.

The mutual jealousy of the Great Powers is manifest throughout this scramble for "spoils and hegemony"; and an interesting commentary on that delicate construction, the "balance of power," and on the diplomacy by which it was preserved, is the statement of M. Hanotaux, the French historian, in 1912, that there was likely to be a great struggle between France and Italy to decide the control of the Tunis "hinterland" and the caravan routes through Ghadames and Ghat to Lake Tchad and the Gulf of Guinea!

In examining proposals for the future administration of African territory, Mr. Woolf disposes of Sir H. Johnston's contention that the administration of the Congo Free State provides a conclusive argument against the efficacy of international control, by showing that the Berlin Conference did *not* provide for the *control* of the Congo Association, and therein failed in its purpose.

The treatment of internal social questions reacts on foreign policy, and (the author argues) we should cease to regard the colonies as "a reservoir of raw materials and a market for exports." In order to prove that control by a country of African territory is not essential to, and often does not secure, this, the trade returns of 1898–1913 are analysed; by which it is shown that, in the case of Germany for example, her total colonial trade merely equalled that with the British Malay States and was but one-twelfth of that with British India. It is a fact that *quâ* States, the cost of administering a colony often exceeds the revenue extracted. Further, British East Africa, with a population of four million natives, badly paid, and a few hundred whites cannot assist the British worker appreciably by providing a market for exports; besides, the Colonial trade is manipulated by traders and financiers who, naturally, always buy in the cheapest and sell in the dearest market, *wherever* that may be.

British administration is admitted, with all its faults, to have been the least harmful to the natives' welfare, although the *Pax Britannica* imposed by the field-gun is not the ideal method of inspiring confidence and spreading the blessings of civilisation. Imperialism is a wrong basis for a colonial policy, but we cannot retrace past steps. What, then, shall we do?

Mr. Woolf throws up the sponge and offers no new practical suggestion, vaguely expressing the hope that the League of Nations or some kindred body will effect some amelioration. "You cannot," he says, "combine a League of Nations in Europe and America with the ideals of 'economic imperialism' in Africa and Asia." But that is where he errs, for that is precisely what will happen till the "new outlook" is experienced; for it is only by slow steps and by using the machinery to hand that progress is really accomplished.

It is obvious that all intending statesmen and politicians should henceforth master, at any rate the elements of economics, geography and psychology, if the errors of the past are not to be repeated.

FRANCIS E. LAWLEY

The Taxation of Mines in Montana. By LOUIS LEVINE, Ph.D. (New York: B. W. Huebsch. 1919. Pp. 141.)

THIS monograph is one of a number of studies on taxation undertaken, at the request of the State Chancellor, by members of the staff of the State University of Montana. For several years past, taxation problems have sharply divided the two main political parties in the State legislative bodies, and feeling runs high between the small property-owners (represented mainly by the farmers and agricultural societies) and the large mining corporations. Each of these interests asserts that the other is not bearing its fair share of the growing tax burden of the State. It was only to be expected, therefore, that the author of this work should have incurred the displeasure of the mining companies in advocating as he does that they should be assessed on a different and stricter basis than at present. These corporations were sufficiently powerful to prevent the publication of this pamphlet in the ordinary University series along with the others prepared by the Department of Economics, but they failed in an attempt to bring about the author's dismissal from his chair, for, after a suspension of several months and an investigation into a charge of insubordination, largely turning on personal questions, he was reinstated without loss of salary or status.

The Constitution of Montana prescribes in some detail the method by which mines are to be taxed, and thus prevents the legislative bodies from dealing with the problem of mine taxation otherwise than in a very partial and restricted manner. The value of a mine for purposes of taxation is prescribed, partly by the Constitution and partly by legislative enactment, to be the price paid to the United States Government for the surface area plus the independent value of the improvements plus the "net proceeds" for the year. On this assessment the general property tax rate is imposed. Thus the Montana mines are taxed under the system of the general property tax, but a large part of their assessed value is really income rather than property. The Constitution admits of the legislative bodies and their tax commissions altering the method of calculating the value of the item "net proceeds" so as to treat it as income, and tax it accordingly. In one part of his work the author seems to advocate this course, but his conclusions generally seem to incline towards one or other of several carefully constructed systems by which the capital values of mines may be much more accurately assessed for the purposes of the general property tax than by the present system in Montana.

In suggesting that "net proceeds" might be regarded as income if calculated on a fair and uniform basis, the author discusses at length two objections always raised in this connection --the exhaustibility of mineral resources and the special financial risks run by mining companies. Just as any non-mining business enterprise, assigns part of its earnings each year to the renewal of the exhaustible portion of its capital, so a mining company ought either to devote a part of its annual earnings to acquiring new mining properties, and thus prolonging the life of the enterprise or to make provision for the redemption of its capital by means of a sinking fund. Moreover, mining corporations in the United States do this already, for the purposes of the Federal Income Tax Law, which prescribes how allowance for depletion is to be made and how dividends which are profit are to be distinguished from dividends which are capital returned, and the Anaconda Copper Mining Company, which pays almost 80 per cent. of the total tax collected from mines in Montana, publishes accounts from which these items can be readily obtained. To the contention that mining is a more speculative industry than any other and ought therefore to be placed in a class by itself, the reply is made that in recent years failures in mining have not been more frequent than among ordinary industrial companies, and, in fact, are becoming proportionately fewer owing to the employment of more skilled engineers and geologists. A short summary is given of the report on mine taxation presented to the annual meeting in 1913 of the National Tax Association, a body composed of economists, lawyers and tax officials. Three methods of mine taxation, which do not involve the necessity of placing a value on the mining property, are reviewed in turn—the tonnage tax, the tax on gross earnings, the tax on capital stock. Though easily administered, these methods have been almost generally discarded in the United States after actual trial, and now the method most extensively used is that of the general property tax. The great difficulty in the latter system, the difficulty of assessing the value of a mine, is now in a fair way to solution, owing to the skilful work of Mr. J. R. Finlay, an engineer employed by the States of Minnesota and Michigan to appraise their iron, copper and other mining undertakings. Mr. Finlay's method, the *ad valorem* method, assumes that the value of a mine depends on a certain number of factors, such as average cost of securing the products of a mine, average price at which these products can be sold, the rate of production of the mine, the time for which that output can be

maintained, the rates of interest to be allowed, etc. Of course, even in this there is a large element of guesswork, but it is claimed that it is at least "diligent and scientific guesswork." The application of this *ad valorem* method is not always practicable, and the procedure devised to take its place consists in valuing a mine by multiplying net earnings by some definite factor. In Arizona the average annual net earnings (no deduction being made for mine depletion, interest charges, new construction or acquisition of new real estate) for a period of four years is taken, and this amount is assumed to be 15, 20, 25 or 33½ per cent. of the value, according to the position of the mine in a carefully graded classification. The assessment of non-producing mines raises problems not met with in the case of mines already working, but in all the States the tendency is towards conservative treatment and the postponing of the full possible claim of the State until knowledge of the resources can be obtained from actual working. Under any system of mine taxation fair and accurate assessment can be helped considerably by careful and uniform accounting by the mining corporations. At the present time the State tax commissions are receiving much help in this direction as a result of the requirements of the Federal Income Tax Law of 1916 with its amendment of October, 1917. Montana, in consequence of its constitutional limitations, must lag behind the other States in tax reform, and will need to have a vote by the people at a general election before the necessary amendments can be carried. Meantime, teachers in the State University will scarcely be in as unfettered a position as their colleagues elsewhere in discussing problems of taxation which involve the interests of powerful corporations possessing large political influence. Perhaps, however, there is little ground for any fear that the author's experience may be repeated, either in his own case or that of any other member of his faculty.

J. G. SMITH

Working Life of Women in the Seventeenth Century. By ALICE CLARK. (London: George Routledge and Sons, Ltd. 1919. Pp. vi + 335.)

THE deterioration in the economic status of women, which took place in England in the seventeenth century, is the subject-matter of this volume. Miss Clark argues that under a system of "domestic industry," where goods were produced at home for the exclusive use of the family, and under "family industry,"

where the entire household, directed by the mother, produced goods for sale, the position of women was an honourable and respected one. Their economic value was unchallenged, and their husbands relied on them to contribute to the support of the family. Under the capitalistic *régime*, on the other hand, women sank into a condition of economic dependence. The position of the woman wage-earner was deplorable, while in the home the wife was practically an unpaid domestic servant.

In the preface to the volume the writer tells us frankly that the theories with which she began her task of investigation, were abandoned in the course of her researches, and this is perhaps responsible for a certain lack of clearness left on the reader's mind with regard to the main issue. Throughout the book it would seem that Capitalism must be the scapegoat for the undoubted deterioration in the economic position of women—for the change from the robust independence of Elizabethan womanhood to the vapours and ineptitude of the ladies of the Restoration. The wife of the enriched capitalist lost the tradition of work, the wife of the journeyman who could not become a master, never had a chance, and gradually the woman who was "free of her husband's gild" dropped out of the economic structure of society. So far Miss Clark has made her point. She seems, however, to recede from it, when she admits that the exclusion of women from skilled work was caused in the first place by lack of specialised training, and was not the necessary result of Capitalism.

The life of women under the gilds, as drawn in this volume, was full of useful and varied activities, but it does not appear that the wife occupied any position other than her husband might, either from inclination or force of circumstances, assign to her. She was essentially a helper, and, as Miss Clark points out, her function was generally in those branches of work which required general intelligence rather than specialised knowledge or skill. The progress of industry and trade, the increase of specialisation, and the rise in standards of productivity, as well as the shifting of the scene from the home to the factory, were bound to tell against the woman with family claims and ties. It was impossible to serve two masters when one of them became so increasingly exacting.

The conclusion which emerges most clearly from Miss Clark's book is that the economic position of women, who had no voice in the management of their lives and affairs, was completely at the mercy of external happenings. Custom and the immediate

needs of the family seem to have decided their fate, and economic independence could not be attained without a much greater degree of personal liberty than the seventeenth century was ready to approve.

H. REYNARD

Die Gerechtigkeit der Besteuerung: eine Analyse der Steuerprinzipien auf Grundlage der Grenznutzentheorie. Von ERIK LINDHAL. (Lund: Gleerupska Universitets-Bokhandeln. 1919. Pp. 226. 8vo.)

TAKE a student in the law faculty who is about to prepare a doctor's thesis, impregnate him with a strong dose of German metaphysics, shut him up with the works of a hundred and fifty authors, and set him to examine their views upon justice in taxation. If he is of an acutely dialectical turn you may expect such a volume as the present. If it is written in Swedish and translated by friends into German, you must not be surprised if the translation, in the words of the old rhyme, "makes that darker which is dark enough without."

The theory of marginal utility with its refinements is adopted as the touchstone of justice—a somewhat trying topic for a novice in the lists. The author tilts courageously, almost fiercely, against all comers. Our American friends describe certain objects and statements as "foolproof," and there is a good deal of financial literature which will not stand so severe a test. Perhaps it would be more polite to say that the author examines a large number of statements to see whether they are "lawyer-proof," and finds them wanting. In a great many instances the author and the critic are in virtual agreement as to substance, and there is no addition to our stock of knowledge by a process which makes an uncharitable interpretation of the text in order to belabour it. Life is not long enough for us to express, either in speech or in writing, all the limitations and reservations which we leave implicit in our statements.

It would be ungracious not to add that the author has mastered his material in a promising manner and displays considerable critical acumen. The assertion that just taxes are impossible without a just distribution of wealth and of political power will come with a shock to the majority of readers; but as the author does not venture upon the perilous quest of defining these just distributions of wealth and power, we are reminded of Boswell's observation when Johnson was interrupted in answering a question as to our future state: "To my lasting regret he left the subject in obscurity."

HENRY HIGGS

NOTES AND MEMORANDA

Unemployment in Eastern Canada

The student of unemployment in Canada must face a preliminary difficulty. Current discussion of unemployment relates almost wholly to settled industrial countries. It gives a perspective of these countries, not always useful elsewhere. Different districts in Canada have reached very different stages of development; and an inquirer fresh from the treatment of English unemployment problems must be ready to shed his prepossessions when approaching Canadian conditions.

Even American experience is a halting guide. For certain great changes, which after three generations are still incomplete in the United States, are occurring in Canada far more rapidly. The forces which since 1880 have transformed the character of immigration, the relatively late growth of Canada, the smallness of the native population, have combined to hasten these changes. The kindred Canadian problems of immigration, unemployment and assimilation are not only comparatively new, but of a special urgency.

The reaction on the labour market of the great extremes of climate found in Canada does not make their solution easy. Thus, in June, 1917, no less than thirteen thousand workers were employed in the canning and preserving of fish. In October the number had fallen below 5,000, and in December was only 2,355. "On an average," says the Dominion Bureau of Statistics, "each of the establishments worked full time 111 days, part time 10 days, and was idle 183 working days."[1] All outdoor industries are affected by the seasons, and navigation on the Great Lakes entirely ceases in the winter months.

Adequate public organisation of the labour market involves a dovetailing of seasonal employments far more extensive than in England. This is hampered, but not prevented, by the frost of winter. For some years past at points as distant as New Brunswick and Saskatchewan, experience has shown that certain kinds of construction cost little, if anything, more in winter than at other times. Excavations in earth and rock are held in place by the frost and do not need to be shored up. Tunnelling can be done in severe weather with little more cost than in summer.

[1] *Labour Gazette* (Ottawa), Jan., 1919.

Programmes of construction, which will make for continuous employment, are, however, very rare. Variations in the number of municipal workers paid by the day or week are at present very large. The gross monthly change in the number of such temporary workers, employed by the cities of Montreal, Toronto, Hamilton, London and Ottawa, averaged during 1918 almost 18 per cent. of the number on their pay rolls.[1]

Existing information may be thought to suggest that Canada has been less subject than older countries to periodic trade depression. The Clearing House statistics of the present century record a series of downward fluctuations in Canada noticeably smaller than the corresponding English fluctuations. Nevertheless, the depression immediately preceding the war, so far as it could be compared directly with depression in other countries, caused a proportion of unemployment that was unequalled elsewhere.[2]

The psychological forces which aggravate depression are in any case likely to be strong in countries which import capital. Investment combines with immigration to create a demand for goods, which does not immediately depend on the demand of the native consumer. Producers of a certain type lose sight of the condition on which development is based. It is a natural assumption that the steadily growing demand for goods is a permanent factor making for prosperity. Such a belief, of course, brings its own Nemesis, and was in some measure responsible for the depression of 1913–1914.

If Canadians do not always appreciate these risks of unemployment, immigrants are still more ignorant. Knowing neither what it costs to settle, nor even, sometimes, where to find employment in their trade, they bear the brunt of suffering when times are hard.[3]

Inevitably, therefore, the miscellaneous opportunities of town life make a powerful appeal. Congestion in the cities has, indeed, everywhere been a feature of the New Immigration: and the larger the city the greater its attraction for the Latin, Slav and the Jew. In Canada municipal bodies have rivalled one another in bidding with privileges and concessions for more factories and railways. Manufactures have been fostered by the protection of

[1] *Labour Gazette* (Ottawa), *passim.*

[2] *Bulletin of the United States Bureau of Labour Statistics*, No. 172, 1915. *Report of the Ontario Commission on Unemployment*, Part II., chap. I.

[3] A comparison of the volume of immigration with statistics of unemployment shows that the British and American immigration responds noticeably to changes in the Canadian industrial situation: but immigration from continental Europe shows no immediate response.

infant industries. It has been no part of public policy to build up a foreign population in the cities; but the city growth which was intended and secured by the sponsors of the Canadian Tariff may well have stimulated the foreign element in immigration.[1]

Many men with only farming experience are now found in the cities. Inquiries made in 1914 and 1915, at Hamilton, Port Arthur and Toronto, showed that as much as 60 per cent. and even 90 per cent. of foreigners who came under review were peasants who had not gone on the land in Canada.[2] A consensus of opinion on the reasons for this is an essential preliminary to reconstruction.[3] Meanwhile there is a large industrial population, for the most part unskilled and speaking many languages, whose needs must be considered. Among these there has always been a good deal of winter unemployment. Nor has there ever been a large enough export of manufactured goods to prevent the most acute distress whenever the nation's capacity for factory production outstripped the home demand for it. Such was the situation in 1914 when the war began.

In the total absence of a Poor Law there was no concerted policy for the guidance of local authorities. In any considerable city there were half a dozen public and private bodies, more or less directly charged to provide employment and relief. No clear distinction was drawn between work at wages and charity; more often than not men were sent to work, not on account of their qualifications, but of their necessities. A familiar result was the gradual deterioration of the victim of these well-meant efforts: and the fame of any city that offered adequate relief was noised abroad so quickly that it became the beggars' Mecca.

The first attempt to measure the problem in Canada was made in 1915 by the Ontario Commission on Unemployment. It was unfortunately unable to cover the whole of industry, and the task had to be limited severely. Members of the Canadian Manufacturers' Association who had factories in Ontario were asked to state in detail the number of men and women on the last pay roll of each month, from January, 1912, to December, 1914. The number of replies covered 39 per cent. of employers who received the circular, and represented 34 per cent. of the number of manufacturing operatives in the province, as shown by the census of 1911.

Among the firms reporting, the average number of workers

[1] *Transactions of the Royal Canadian Institute*, Toronto, Vol. X., pp. 1–16.

[2] *Report of the Ontario Commission on Unemployment*, pp. 149–151.

[3] See, in this connection, the *Abstract of the Report of the U.S. Immigration Commission*, Vol. I., p. 40.

employed throughout the year increased, from 1912 to 1913, by 6½ per cent. and declined, from 1913 to 1914, by nearly 16 per cent. The contraction of employment in the second phase was twice as great among the men as among the women.[1]

It was decided to classify the returns by groups of industries, as the census returns are grouped in Canada. The result obtained for each group of industries could then be weighted according to that group's importance in the provincial economy, so as to show the presumed actual diminution of employment in Ontario factories between 1913 and 1914. The resultant figure was 11·8 per cent.[2]

The great difference that at first appeared between employment among men and among women found a simple explanation. Four groups of industries appeared to be subject to remarkable changes. These were—the manufacture of iron and steel products, of other metals, of vehicles for land transportation and vessels for water transportation. And less than 4 per cent. of the workers in these industries were women.

The average volume of employment, in the ten groups of industries, which employed both men and women in large numbers, was less in 1914 than in 1913, by 7 per cent. among the men, and 8 per cent. among the women workers. Among the four outstanding groups of industries, in which the risk of unemployment applied almost exclusively to men, there was a corresponding decrease of no less than 23·4 per cent.

Since during the last five months of 1914 trade was in an abnormal condition of uncertainty, a further analysis was made. The method already detailed was applied to the returns for the first half of each year. A comparison between the first six months in 1913 and the same in 1914 repeated the conclusions of the former study. The weighted table showed a decline, in the four selected groups of industries, of 17½ per cent., and in all the fourteen groups of 8½ per cent. "When the number of unemployed during the first six months of 1913 is added to this figure," says the Report of the Commission, "it is clear that the proportion out of work can have been little less than 11 per cent."[3]

The Canadian *Labour Gazette* now publishes reports from trade unions (with a membership of nearly 200,000) similar to the reports on unemployment furnished by trade unions in England. In addition to this, the Federal Department of Labour began in 1919 to publish in the Press a weekly series of returns from

[1] *Report of the Ontario Commission on Unemployment*, p. 90.
[2] *Ibid.*, p. 93.
[3] *Ibid.*, p. 98.

employers.[1] The Department provides each employer on its mailing list with a card to be filled in and posted every Saturday; and it is thus enabled, by the following Friday, to publish an estimate of the change in employment, by districts and industries, during the past week, as well as to provide a detailed forecast of changes in the week to come.

The haphazard arrangements for placing workmen in employment, at the time when the Ontario Commission made its Report, were ill-adapted to take advantage of such a forecast on the labour market. An employment service for farm labourers, maintained by the Federal Government, was efficiently duplicated on a smaller scale by the Province of Ontario. But these two bodies were not co-ordinated. A very small provincial employment service in the cities of Ontario was not in touch with the municipal employment bureaux that existed in Ottawa and Toronto. Trade unionists for the most part avoided such public offices as there were, preferring to report themselves, when out of work, to the business agents of their unions, who tried to find employment for them. Private employment agencies, working sometimes on an extensive scale for profit, dealt with the bulk of unskilled labour.

Though the last named of these by no means rivalled the rich and elaborate agencies sometimes found in the United States,[2] they quite overshadowed all the public employment offices in Eastern Canada. The profits to be made were very large, and for a long time they were free from supervision. In 1913, however, a Federal Order in Council compelled them to secure a licence, and their operations among immigrants were subjected to government inspection. Grave abuses were discovered, of which the almost invariable victim was the foreign immigrant. Moreover, it was possible for any private agent to induce an immigrant to declare himself a citizen in order to secure employment, and agencies ostensibly not dealing with immigrants may have multiplied abuses. In 1914, therefore, the Legislature of Ontario made a provincial licence obligatory for all employment agents in that Province.

Not only has the private agent been brought under control. He has now to meet with effective competition. In 1916 the shortage of labour in munition factories made it essential to look for a new source of supply. The Government of Ontario replaced the part-time salaried employment agents, who had existed in the

[1] See the *Labour Gazette* (Ottawa) for October, 1919.

[2] See the *Report of the Mayor's Commission on Unemployment*, Chicago, 1914, pp. 48, *et seq.*

larger cities, by setting up bureaux with an adequate staff. These served their immediate purpose by selecting women fitted for munition work, and in 1917 were called on to do the same for agriculture. Their success in dealing with the day-to-day requirements of employers appears to have won for them a considerable measure of public confidence.

Meanwhile the Government of the United States completed its scheme for the federal supervision of State Employment Bureaux. The main provisions were repeated in Canada when a Federal Act of 1918 defined the place of the Dominion Government in schemes attacking unemployment. An Employment Service Council of Canada now represents in an advisory capacity the Governments concerned in this, the railways and the manufacturers, the Trades and Labour Congress, and the returned soldiers. An agreement with the principal railways enables all workmen, for whom a Provincial Employment Office finds employment, if it involves a journey by train costing more than $4, to travel at a special rate of one cent per mile. The financial provisions of the Act, which have since been extended by supplementary vote, maintain two distinct agreements. Quebec and Ontario, with the Western Provinces, receive in subsidies from the Dominion Government a sum equal to their own expenditure on their employment services. New Brunswick, Prince Edward Island and Nova Scotia cannot at present maintain employment services, and in these provinces the Dominion Government is opening a service of its own.

To supervise transference of labour, each province will ultimately have its Labour Clearing House. There are also Dominion Clearing Houses at Winnipeg, Moncton and Ottawa.

Organised labour has watched these developments with an approval as welcome as it was unexpected. The labour movement of Eastern Canada has been suspicious of attempts by Government to organise the labour market. But the logic of facts was too strong for it. The private employment agent displayed an adroitness in swindling his clients which made him a public danger. In certain industries and grades of labour he had met with little competition till the Public Employment Offices were started. Even now, since there is not an effective publicity organisation to tell the foreign immigrant in his own language what the State offers him, many foreigners still use the private agent. Protests from organised labour, condemning his existence, have quickly multiplied; and in November, 1918, these culminated in one of a series of resolutions jointly submitted to the Govern-

ment by the Trades and Labour Congress of Canada, the Canadian Manufacturers' Association, and the Joint Committee of Technical Organisations. This resolution set the seal of public approval on the Provincial Employment Services, and called for the destruction of the private agent.[1]

But the Trade Union that never concerns itself with general questions probably does not exist. In Canada labour has sometimes been prone to find in land settlement the cure of unemployment. It has, however, been under no delusions regarding the free grant of land that has in the past been offered to the settler. It demands effective safeguards for the men who "take up" land. Sustenance, shelter and agricultural tuition, if they cannot drain the cities of their "misfit" labour, can at any rate do something to stop the drift to the cities of disappointed farmers and will make for proportionate urban and rural development. A nucleus for widespread agricultural tuition was already to be found in certain of the provinces. The working model for a scheme of assistance was provided in the legislation of Australia. The combination of adequate practical instruction to selected settlers, with provision for capital advances and an amortised system of repayment, was eminently suited to the times.

As in the beginning of an employment service a war emergency served to hasten action, so did the near approach of peace speed the production of a new land policy. Inquiries made in April, 1917, among the Canadian soldiers overseas led to the belief that almost 100,000 of them were prepared intelligently to make use of such a scheme.[2] In the same session a Soldier Settlement Act was passed which applies not only to the soldiers and sailors of the British Commonwealth, but also to British subjects resident in Canada before the war, who served in any of the Allied Forces, and to the widows of those who died on active service.

This Act grants very wide power to the Soldier Settlement Board of Canada. It enables the Board to expropriate land held privately for speculative purposes, to select and train ex-soldiers, to lend purchasers of land not more than $7,500, and settlers on free land not more than $5,000, to secure them special railway fares, to inspect and guarantee before purchase their livestock, to make arrangements for the sale of implements at special rates, to supervise their farming, and the building of houses on the farms. Up to November 1st, 1919, the number of free grant entries was 5,246. The Board had approved 15,209 loans, amounting in all to $49,041,581.

[1] *Labour Gazette* (Ottawa), Dec., 1918. [2] *Labour Gazette* (Ottawa), Jan., 1919.

Apart from the large number of Canadian soldiers claiming the 320 acres provided for them, the scheme gives safeguards to the British soldier-settler which did not exist before. The publicity which it receives will be the measure of its power for doing good. Another of the twelve resolutions jointly submitted to Government by the Trades and Labour Congress, the manufacturers, and the technical organisations of Canada relates to the need for an impartial and central migration authority, to provide intending emigrants with accurate and unbiassed information. Such an authority was adumbrated in the Emigration Bill, which passed its second reading in the British House of Commons in the summer of 1918 and was afterwards allowed to lapse.

The foreign immigrant does not directly benefit by the Soldier Settlement Act. It is, indeed, by no means easy to forecast the future volume of immigration into Canada. Resolutions passed at every Labour Conference witness a continued hostility of the Trade Unions to the introduction of coolie labour, which is very natural. Nevertheless, so long as the present law remains in force, forbidding immigration under contract, there seems to be no marked apprehension that the foreign immigrant from Europe will endanger either the standard of life or the prospects of employment of the native worker.

This is partly due to the fact that most of the foreign immigrants do not directly compete with the Canadian. Indeed, in any given industrial organisation an increase in the supply of labour of a certain grade, in so far as, owing to difference of language or training, there is not complete mobility between different grades of labour, may be expected, for the time at least, to produce an increase rather than a decrease in the demand for workers in other grades of labour. If this is the case a large immigration of workers in inferior grades may be viewed by the native workers of a higher grade with comparative confidence in the future.

Such an opinion traverses the traditional American view, that immigration menaces the standard of life of the native worker, so causing a restriction in the native birth-rate.[1] But developments in transport and communication have so much increased the mobility of capital, and made it so quickly responsive to fresh opportunity, that it may be doubted whether the conditions still exist which were assumed by Walker and his successors.[2] It is far more true to say that indirectly the foreign immigrant brings

[1] Fairchild, *Immigration*, ch. xi.
[2] Walker, *Discussions in Economics and Statistics*, Vol. II., pp. 417–426.

with him, to the land of his adoption, the capital that will employ him. Temporary crises may produce a temporary shortage in any one of the factors of production. But, except in an emergency, supplies of capital, and for a long time to come of land also, can expand as fast as the supplies of labour. Without a sudden deliberate and unlimited importation of workers under contract (such as is forbidden by the present Immigration Act), it is hard to believe that immigration can produce, for any length of time, a diminishing return to labour.

It is not his successful competition, but, rather, his occasional failure to secure a footing which constitutes the menace of the immigrant. Anything which makes for preventable unemployment (and it occurs chiefly among immigrants) will react on Canadian society, partly through discontent and delayed assimilation, partly through aggravation of physical and mental defect in the forms of disease and insanity. So, too, the closeness of the scrutiny to which immigrants are subjected at the ports of entry must affect the labour market by reducing to the minimum unemployment which is due to personal defects. Only this scrutiny can prevent the transference to Canada of elements of society which are a permanent burden on the public purse in Europe. Already the casual wards, insane asylums and hospitals of Canada contain a proportion of immigrants far exceeding their numerical strength in the country at large.[1]

The problem has long passed the stage at which a single country can forget the common interest in considering its own. But the attempt of 1918 to create a Central Migration Authority was not successful. At present, therefore, the large issues connected with immigration must be treated as part of the Canadian unemployment problem. So considered, it has aspects wider than those of unemployment in an older country. The fostering of Canadian citizenship by systematic education is as important as the lessening of industrial disturbance. Elimination of the transmissible defects of immigrants takes its place beside the relief of destitution. Organisation of the labour market becomes part of the larger organisation of civic life. Fortunately for all concerned, and not least for the worker wanting employment, these questions stand outside party politics. Perhaps for this reason they may meet with a measure of agreement.

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[1] *Report of the Ontario Commission on Unemployment*, p. 52, and Part II., ch. II.

AUSTRIA AND FREE TRADE

I

THE present Succession States (before the war, the Austro-Hungarian Empire) formed a large area of free trade and above all of free traffic. All these Succession States taken together would, as regards food and the most important necessities of life, be not only self-supporting but, even at the present moment, they would be able to export. As it is they have shut themselves off from each other by restrictions and barriers on the frontiers, which may be called not only artificial, but absurd—nay, mad.

Owing to these barriers it is impossible for the people in the different states to move about freely, to do business or to exchange goods. It is impossible to move goods from the centres of supply to centres of demand. Not only each country, but every district within Austria proper, concentrates the whole of its policy upon keeping all necessary goods within its own frontiers, and if it comes to the exchanging of goods, requires that this be done through officials and through the governments. Governments can never do this business. As the classic on Free Trade, Lord Farrar, says :—

"Every man knows better what he wants to buy and sell than his government can possibly know for him. He will buy and sell to the best advantage if left free to buy and sell as he chooses."

The country which suffers most under these conditions is Austria, and by retaliating she does not make things better. Cobden says with regard to such restrictions and barriers :—

"A foreign tariff is one impediment; over that you have no power. Your own high tariff is another and a separate impediment with an additional and cumulative effect; over this you have power. Remove the impediment over which you have power and do not wait for the removal of the further impediment over which you have no power. You will gain much if you do not gain all."

What is true of tariffs is even more true of the barriers and restrictions which now prevail between the Austrian Succession States. The only possible response Austria can give to these is to open up her frontiers. The free market thus created will prove an enormous attraction for all the surrounding countries. The first consequence will be that the restrictions within the Austrian frontiers would have to fall. It would be impossible for the provincial authorities, with a free market legally established by the central government, to prevent the people, especially the

peasants, from selling their products in the best market which will be (as in the days before the war) the big towns, which at the present time do not get anything from the country itself because the authorities pay only a fraction of the true market price. Immediately after this the national states would have to follow suit.

If Austria were to remove all passport difficulties, as against the other states, all embargoes on imports and exports, then the populations of the other countries would, in a very short time, force their governments to do the same.

Of course, over a certain time, during the period of transition, help from outside would have to be given to keep the people going, *i.e.* the industrial population in the big towns, until the next harvest. It would mean the continuance of the support that has been given until now, for another six months. After that time, with free traffic ensured all round, Austria would be able to a great extent to supply herself with the necessary foodstuffs and get the rest in exchange for services rendered to the other States. To carry all this through, it would be necessary to enlighten the people and to explain to them the real economic situation.

There are only two alternatives for Austria—either perfect freedom, free traffic, free exchange of goods, which would gradually re-establish the old economic life in all the Succession States, so that it would not matter where the frontiers are or where the coal lies and so on; or, alternatively, the maintenance of the present system, which would mean restricting business daily, continuous decrease of production, and, on the other hand, increase of hostility not only between the Succession States but also between town and country, war between the different classes in the country and, in the end, utter chaos and ruin.

Much food will be wanted in the Western countries of Europe, and the crops may just suffice to supply the demand. It will, therefore, be impossible for England and for other countries to extend food supplies to other parts of Europe for any length of time. But, with free exchange of goods ensured, they can easily be self-supporting even at the present time.

Austria does not know the strength of her position; weak as she may appear to be at the present moment in consequence of the restrictions and barriers that are set up on the frontiers, she is the country which, by her geographical situation, by her commercial forces (now paralysed), can most easily upset the whole system, which is bound to ruin not only herself, but all the Succession States of the old Austrian Empire. So she could be an

object-lesson to the whole world, especially to Germany and Russia, from which countries the original disease started; the original disease was militarism, which translated into economic life means Government control and Bolshevism. Militarism, Government control and Bolshevism believe in the power of brute force to make people do things which they will only do in perfect freedom and if it is worth their while to do them.

II

Compulsory State control is ruining our production; in fact, our entire economic life. The basis of our economic life in Austria is represented by agriculture, although the many amateurs and know-nothings, who nowadays keep meddling with these matters, will not have it so. Even more than of France, or of Germany, we must say of Austria: "Wealthy farmers mean wealth all round." To-day our agriculture furnishes only a small part of the country's needs, in consequence of compulsory State control, which causes a continual diminution of production and supplies. The greater part of the foodstuffs for the towns must be got from abroad. The most sensible policy would consequently be to increase production as much as possible, and this for two reasons: (1) To lessen the foreign supplies in a gradual manner, till they become superfluous; (2) to secure them at least with certainty for the time during which we cannot feed ourselves by our own production. To-day we are already met by great difficulties in regard to further food-credits, and are told that they were given under the condition that they would be paid back some time. If, however, the most important branch of production in a country is continually oppressed and systematically ruined, the credit of this country will naturally go down. "If you want further credits, you must deserve them. So far you have not shown us any plan for this, and, on the contrary, everything you do makes it impossible for you to pay in future."

To increase production means giving inducements to it. How is this done to-day in Austria, especially in regard to agriculture? By paying the farmer about 5 to 10 per cent. of the sum which his products would fetch in the world's market. The world's market price for wheat to-day is about K.24, the maximum price here is K.2. In England the farmer is paid K.40 for his milk; here we pay him, according to the part of the country he lives in, between K.2 and K.4. This is not veiled, but quite open, confiscation.

The consequence of such a system, which in reality is equivalent to the methods of the Bolshevists in Russia and Hungary of simply robbing the producer of his products, is that the farmers try everything in their power to prevent the confiscation. They consume as much as possible themselves, feed their stock with the rest or sell it, if possible to illicit dealers. And, if all this is of no avail, they seize arms and give battle to the gendarmes and soldiers who try to take away from them the fruit of their labour. The big landed proprietor, on his part, since he can neither hide his crop nor fight, tills only part of his land, in order to escape requisitioning. For everything he delivers up means a loss to him. If he were to employ farm-hands at the present rate of wages, cultivate extensively and deliver, he would be ruined in no time.

It may be granted that the present situation is a difficult one for the Government. The masses have been fed with the most blatant catchwords, and, not only this, but their worst instincts —envy and hatred—have been roused almost officially. And now the ghosts conjured up will not disappear again. It is impossible to let the prices soar up officially overnight to their proper level (although this will face the officials one day in the form of a catastrophe); a period of transition must therefore be arranged. Reserves must be laid up for the time which will probably elapse till economic life has returned to fairly normal ways. As before, these reserves must be got partly from abroad and partly—as far as possible—at home. In order to get as much as possible at home, the State will have to pay the world's market price to its own farmers as well as to foreigners; it must buy in a free market.

Such a policy will help our own exchange far better than puerile prohibition of exporting banknotes and foreign monies. If the farmers now received the same price as is paid abroad, they could be taxed, and a large part of the outlay would thus return in the form of taxes. In this manner the printing of paper money could be kept within proper limits. While the granting of foreign credits for foodstuffs will cease in a short time, if the present system of compulsory Government control, with its destructive effect upon production, continues, the foreign countries will, from the moment that the production shows an increase, regain confidence in the future of Austria, and even grant further credits.

What kind of a plan has now been devised by our officialdom in order to increase our most important branch of production, viz., our agriculture? So far as can be judged from the news-

papers, it consists in the following: Maximum prices are to be kept up as before—that is, the farmer will receive only a small fraction of their real worth for the products he must deliver up. We are not informed of the scientific basis of the manner in which these maximum prices have been arrived at. What remains to the farmer over and above the contingent which he must deliver up he may use for himself or give to his stock, etc. But that which he can neither eat himself nor feed his stocks with, he cannot sell at will, but must again deliver it to the State, which will endeavour to give him in return, not money, but articles of necessity! To this end a new institution will be created, with the object of exchanging the agricultural products against the articles needed by the farmers. In other words, new departments with thousands of new officials will arise, to do what our ancestors did 20,000 years ago, before the use of money was known, viz., barter in its most primitive form.

The following tale is now being spread: Last year the contingent system was introduced, yielding to the pressure exercised by the people who stand for free competition trade, but it proved a failure, like the former system of compulsory Government control. This is false. Not the contingent system has been introduced, which has proved its worth in Belgium, but a very injurious law has been set up, which is common to it only in name, and, for the rest, its very opposite, indeed, its entire negation. It was laid down that the farmers need only deliver up a certain contingent (which they could have done easily), the surplus they might use for their own and their families' needs. What they neither sold as contingent nor used themselves, they again had to deliver up to the State at the maximum price.

The contingent system is based upon the idea of enabling the farmer to recoup himself, by selling in a free market, for the loss he suffers from being forced to deliver up a certain quantity to the State. The delivery of the contingent for the State would have become in time a kind of tax which the farmer would have to pay as his share in the feeding of the needy town population. Later on normal conditions would have been reached again, with the difference that the farmer would have had to pay his taxes in foodstuffs, instead of in cash, as formerly. This state of affairs would in its turn have come to an end, for such a system of taxation is, of course, economic folly if it lasts longer than is absolutely necessary. It has been kept up only in Turkey and Asia Minor; all modern States have changed to a monetary basis. It is much more convenient for the State to receive its taxes in the form of

ready money, and to use this for necessary purchases, than to be its own produce merchant.

The people are being told now that the contingent system failed, and the farmers refused delivery because they would not sell for paper money. This, again, is false. The farmer will sell everything for paper money, provided you pay him the right price. The State has no need to start new fancy firms of its own, which only serve to augment the enormous body of officials, who then proceed to do business in the most uneconomical manner possible, at great cost and without any profit, while this business could be done in a manner far more useful to the community by the people trained to it. Pay the farmer his price, and he will then be able to procure for himself his tools, boots, clothing, etc., with the money in a better and cheaper way than by means of bureaucratic apparatus.

Our economic life must be rebuilt from the bottom. Its base is agriculture. Revive it, and you also revive trade between town and country. With trade and agriculture blossoming, it is easy to restart the handicrafts, which can be done without large quantities of coal or other raw material. As soon as these three most important factors, which fed the vast majority of the population in Austria during normal times, are in full work again, taxes will be paid, our exchange will rise, and with it our credit abroad. And, with our credit re-established, it will be easy to provide for the necessities of our great manufacturing industries. Like Bolshevism, our present system tends to ruin our entire economic life and to spoil all our credit abroad.

JULIUS MEINL

Vienna.

RECENT OFFICIAL PUBLICATIONS

Report by a Court of Inquiry Concerning Transport Workers—Wages and Conditions of Employment of Dock Labour. House of Commons Papers, 55. 1920.

The Court reports to the Minister of Labour that with a view to establishing a national minimum standard the minimum for day workers and piece workers shall be 16*s*. per day, on the basis of the National Agreement. This comes to £3 4s. a week if, as appears to the Court, the casual worker works eight half-days out of the possible eleven. See review on page 272.

Forty-eighth Annual Report of the Deputy Master of the Mint (for 1917).

The new silver coin issued in 1917 was just above four million sterling, whereas the amount in 1916 was just above eight million.

Industrial Conference. Report of Provisional Joint Committee. [Cmd. 501.]

The Committee recommend *inter alia* the establishment by legal enactment of the principle of a maximum normal working week of 48 hours, and of minimum time-rates of wages, universally applicable; full and frank recognition of employers' organisations and trade unions and a permanent National Industrial Council. The trade unionist representatives, Arthur Henderson and G. D. H. Cole, append a memorandum on labour unrest, which they attribute mainly to the conviction of the working class that production for private gain is inequitable, and to the refusal of the Government and employers to recognise the need of a new industrial system.

Report on Profit Sharing and Labour Co-partnership in the United Kingdom. [Cmd. 544.]

A worthy sequel to the Report on Profit sharing of 1894 (by Schloss), and the Reports of 1912 (and 1914). A new feature is formed by details relating to abandoned schemes. The average bonus obtained is just above 5 per cent. of wages.

Increase of Wealth (War). [Cmd. 594.]

The Board of Inland Revenue affirm the practicability of levying a duty on war-time wealth, and make suggestions as to the form which such a duty might take. The change in the value of money is said to afford "no justification for a general allowance in determining the amount of wealth subject to the proposed duty."

Report of the Royal Commission on Decimal Coinage. [Cmd. 628.]

To place our currency on a decimal basis is found to be unadvisable.

THE ROYAL COMMISSION ON THE INCOME TAX [1]

THE report of the Royal Commission on the Income Tax is the first comprehensive report dealing with the subject which has ever been published. The committees of 1905 and 1906 were concerned with special points only, whilst the earlier committees of 1851-2 and 1861 did little else but listen to evidence. Already before the War the need for a full inquiry was being felt, but the great increases in the rates of income tax during the War, together with the contemporaneous development of income taxes abroad, made it absolutely essential that a survey of the whole position should be made, so that means might be found for relieving hardships. Even before the Commission was appointed in April, 1919, and also whilst it was sitting, something was done

[1] *Report* [Cmd., 615] 3*s*. 0*d*. *Seven Instalments of Evidence with Appendices* [Cmd. 288—1, 2, 3, 4, 5, 6, 7], 16*s*. 0*d*.

in the matter of assisting certain hard cases, by extending the children allowance, by granting new allowances in respect of wives, housekeepers and dependent relatives, and by making some concessions in the case of double income tax within the Empire. Nevertheless, various hardships still remained. The particular points to which public attention was perhaps most directed were the unduly heavy burden imposed on family men with moderate incomes, the great "jumps" in the income tax at certain points in the scale, the need for modifying the exemption limit, and the question of double taxation.

Many people probably realized that there were other matters which called for attention, but I doubt if any one person had any conception of the immense variety of claims for relief, in one direction or another, which would be brought before the Royal Commission. Most of the 166 non-official witnesses who were examined by the Commission appear to have claimed some relief or other, generally in their own interests, or in the interests of the people they represented. Thus, we find manufacturers asking for a more generous treatment of depreciation and obsolescence; mining associations seeking an allowance in respect of wasting assets; the Labour Party asking for a £250 exemption limit, allowances in respect of sickness, accident and trade union contributions and relief from tax in respect of sums earned in overtime; school-teachers asking that outlay on agency fees and necessary books should be treated as expenses; bishops asking for allowances in respect of "official hospitality" and "official subscriptions"; the clergy desiring that Easter offerings should be free of tax; local authorities claiming that public sewers should be exempt from assessment to income tax; property owners asking for larger allowances for repairs; charities seeking relief from tax under Schedule A, where buildings are both owned and occupied by charities; life assurance offices asking that income tax on their interest should be levied at a reduced rate; cremation and cemetery companies claiming relief in respect of expired capital outlay on land and buildings; doctors asking for depreciation allowances on their motor cars; women's organizations claiming that a wife's income should be treated separately and not aggregated with the husband's; superannuation funds desiring that the interest on their investments should be exempt from tax; headmasters and the Board of Education seeking for larger allowances in respect of young persons receiving full-time education.

Other grievances brought before the Commission, with requests

for relief, related to the double income tax borne by residents in this country drawing income from the Colonies or from foreign countries where income taxes exist; to the deduction of the tax at the standard rate, without reliefs of any kind in most cases, in respect of incomes drawn from this country by British subjects resident abroad; to the unduly heavy burden imposed by the high income tax on foreign investors in British companies "controlled" in the United Kingdom but operating abroad; to the unhappy position of agents in this country who are liable to be assessed for income tax on behalf of their foreign principals. In connection with this last point there arose what appears to have been the chief, if not the sole, instance before the Commission, of *non-official* evidence being forthcoming to oppose a claim for relief.[1]

In matters not especially concerned with reliefs, plenty of conflicting evidence was given before the Commission by non-official witnesses. Thus some advocated abolition of taxation at the source, and others its extension—at present some 70 per cent. of the tax is collected at the source; some wished to do away with the differentiation between earned and unearned income—a view which is upheld by five commissioners in a reservation—whilst at least one witness recommended that all earned income should be charged at only half the rate imposed on unearned incomes; private traders were very keen on co-operative societies being subject to income tax on the whole of their "profits," whilst the representatives of the Co-operative Union urged that the present method of taxing Co-operative Societies should be retained.

The evidence of the various witnesses concerning Co-operative Societies,[2] including that given by Mr. Stanford London on behalf of the Board of Inland Revenue,[3] deserves special attention, as the subject ultimately proved to be the one about which least agreement amongst the Commissioners was found. To this, however, more detailed reference is made below. The subject of the £250 exemption limit is perhaps most fully discussed in the evidence of Mr. Sidney Webb[4] and of Sir Leo Chiozza Money,[5] whilst Professor Bowley gave useful evidence[6] on the general principles which should determine the exemption limit. Other evidence of particular interest, given by witnesses who had no

[1] In connection with the assessment of American meat firms trading in this country, the opposition coming from two large English meat firms.

[2] More especially Q. 17,324 *et seq.*, Q. 17,612 *et seq.*, Q. 17,924 *et seq.*, Q. 18,372 *et seq.*

[3] Q. 19,419 *et seq.*

[4] Q. 6,878 *et seq.*

[5] Q. 10,536 *et seq.*

[6] Q. 6,601 *et seq.*

special axes to grind, was that of Professor Edgeworth [1] on the pure theory of taxation, and of Dr. J. C. Stamp [2] on a variety of topics, including double income tax and "control," wife allowance, and the principle of graduation. Practical schemes for graduation were put forward by Mr. Schooling [3] and Mr. Zorn.[4] On this topic, as also on the subject of differentiation, special attention must be drawn to what may be described as the semi-official evidence of the Association of Tax Surveying Officers.[5] The method of differentiating between earned and unearned income by means of a percentage deduction from earned income—the method ultimately recommended by the Commission—is suggested here in a modified form. Further, Sir E. E. Nott-Bower,[6] in cross-examining the representatives of the Association with regard to their scheme for graduation by means of a series of ascending abatements, drew attention to a possible simplification of the scheme which provides the closest approximation to the "graduation" recommendations in the Report to be found anywhere in the seven instalments of evidence.

Taken as a whole, the official evidence, together with the numerous statistical tables, memoranda, and historical notes put in by the official witnesses, provides by far the most valuable material for economists. The official evidence can roughly be divided into two classes: (*i*) that containing general information about the income tax and suggestions for certain reforms that appear desirable in the opinion of the Board of Inland Revenue or of the Special Commissioners and (*ii*) that reviewing, or replying to, suggestions made by non-official witnesses. This second class of evidence sometimes contains counter-suggestions by the Board. Some of the official evidence is very technical, as, for example, that concerned with special reliefs from income tax introduced to meet war conditions,[7] and with the assessment to income tax of the profits of breweries.[8] On the other hand, much of the official evidence is of great general interest and full of valuable information. Mention may be made of Mr. Hopkins's evidence on graduation and differentiation [9] and various official memoranda [10] on the same subject; Mr. Spry's evidence on the separate assessment of the incomes of husband and wife [11]; Mr. Harrison's evidence on Double Income Tax,[12] and on undistributed profits and the avoidance of super-tax [13]; Mr. Sharland's evidence on Income Tax

[1] Q. 11,783 *et seq.*
[2] Q. 9,573 *et seq.*
[3] Q. 965 *et seq.*
[4] Q. 24,724 *et seq.*
[5] Q. 25,748 *et seq.*
[6] QQ. 26,14346.
[7] Appendix, No. 50.
[8] Appendix, No. 70.
[9] Q. 3,966 *et seq.*
[10] Appendices, Nos. 7*a*, 7*b*, 12, 13, 14, 49, 71.
[11] Q. 2,657 *et seq.* See also Appendix 7*d*.
[12] Q. 6,297 *et seq.*
[13] Q. 14,320 *et seq.*

charged under Schedules A and B[1]; and Mr. Stanford London's evidence on the Evasion of Income Tax.[2] It is difficult to single out any particular official evidence as more interesting than other official evidence, as so much depends upon the particular problems with which the reader is concerned. Almost every topic raised by non-official witnesses is dealt with in the official evidence, whether it be the allowances for depreciation or wasting assets, the taxation of Life Assurance Companies or of "casual profits," the simplification of the forms of return, the principle of "one taxpayer—one assessment," or the reform of the administration of the Tax. Official evidence provides a most useful supplement to nearly every section of the Report.

Against the official evidence in general, it may be urged that it errs on the side of conservatism. This may be partly accounted for by the fact that people who have devoted the best years of their lives to administering a great undertaking are hardly likely to welcome radical changes in the system to which they are accustomed. But it is probably accounted for to a greater extent by the sweeping character of the reliefs and reforms advocated by non-official witnesses. In the interests of the Revenue it was absolutely essential to oppose many of these reliefs and reforms, as hardly any of the suggested alterations offered prospects of additional revenue, whilst many of them would have cost the Revenue large sums. The representatives of the Board of Inland Revenue, realizing how great the need for revenue is, had little or no option but to resist many of the proposals. Had the financial conditions of the country been better and had the alterations suggested been rather less numerous and less sweeping in character, they might have received more sympathetic consideration by the official witnesses.

Whilst the Commissioners in the main have upheld the principal contentions of the official witnesses—"our recommendations, though numerous and far-reaching, do not amount to a suggestion for any fundamental change in the nature of the tax"—they have by no means accepted all the views and suggestions put forward on behalf of the Board of Inland Revenue. The central feature of the Report, the new scheme for graduation and differentiation, is certainly not based on suggestions contained in the official evidence. There are minor matters, too, on which the Commissioners have not accepted the views of the Board, *e.g.* that allowance should be made to teachers to the extent of the Tax on £20 (as a maximum) for the cost of necessary books,[3] and that the

[1] Q. 20,915 *et seq.* [2] Q. 12,376 *et seq.*
[3] Report, § 236 (a) and Appendix No. 63, § 5.

annual instalments repayable to Queen Anne's Bounty in respect of loans granted to an incumbent's predecessor for the purpose of the repair of the incumbent's dwelling house should be allowed as an expense.[1]

Of the problems considered by the Commissioners, those concerning graduation, differentiation, exemption and allowances will no doubt excite the most general interest, as the proposals on these matters affect all sections of the community with an income of £130 and upwards. The suggestions of the Commission on these points provide solutions simultaneously for the excessive burden on the married man with family responsibilities and for the "jumps" in the income tax at certain points in the scale. These "jumps" were due (1) to increases in the rates applying to the whole income at £500, £1,000, £1,500, etc.; (2) to the reduction in, and ultimate disappearance of, the abatements at £400, £600 and £700; (3) to the cessation of the family, etc., allowances at £800 (or £1,000 in the case of more than two children), and (4) to the elimination of the "earned" rate at £2,500.

The Commission recommend that all actual income shall be converted into assessable income by the deduction of one-tenth of the amount of the "earned" income (subject to a maximum deduction of £200), much in the same way that rateable value is commonly calculated by deducting one-sixth from the rent. Thus, a professor with a salary of £500 will have an assessable income of £450, a cabinet minister with a salary of £5,000 an assessable income of £4,800. "Unearned" income—or "investment" income, as the Commissioners rechristen it—will rank without deduction as assessable income. From the assessable income, the proper abatements (or exemptions) and allowances are to be deducted—without regard to the size of the income—in order to ascertain the taxable income. The exemptions are to be £150 in terms of "earned" income (=£135 assessable income) in the case of single persons, and presumably in the case of widows and widowers, although there appears to be no definite statement on that point in the Report, and £250 in terms of "earned" income (=£225 assessable income) in the case of married couples. The allowances for children are to be £40 for the first child (the same as at present) and £30 for each subsequent child (an increase of £5), equivalent to £36 and £27 of assessable income. The housekeeper allowance of £50 and the dependent relative allowance of £25 are to remain. It is not very clear in the Report, but apparently they are to be converted into terms of assessable

[1] Report, § 236 (b) and Appendix No. 66, § 33.

income by the deduction of one-tenth, and are to apply to all incomes, and not merely to those of £800 a year or under, as at present. The wife allowance, as such, disappears, being merged in the exemption allowed to a married couple.

Taxable income, having been ascertained by the deduction of the proper exemptions and allowances, is to be charged at half the standard rate (or 3s.) on the first £225, and at full rate (or 6s.) on all the remainder. This really amounts to applying the super-tax principle of different rates for different zones of income, but with two important modifications: (1) There are to be only two rates of income tax as against eight rates under the existing super-tax, a matter of great importance for the practical administration of the tax, and (2) whereas the amount of income in respect of which the super-tax rate is 'nil' (the first £2,000 during 1919-20) is fixed, the amount of income in respect of which the income-tax rate is 'nil' will be variable, depending upon the family circumstances, etc., of the taxpayer. The new income-tax scale can be written as follows:—

Assessable Income	*Rate*
In respect of the first £135, or £225, or larger sum according to family circumstances ...	nil
In respect of next £225	3s. 0d.
In respect of remainder	6s. 0d.

The Commission is heartily to be congratulated on having found a method of eliminating the "jumps" and of simplifying the scale at the same time, without introducing some complex mathematical formula into the calculation of the tax liability.

Attention may be drawn to two consequences of these various proposals, which may not be obvious at first sight. The first concerns the allowances. In most cases, the actual relief in tax is considerably increased, although the allowances are more or less unchanged. Under the old scheme a married man with a wife and two children and a salary of £700 received a children allowance of £40 + 25 = 65 in respect of the children, which reduced the total tax payable by 65 × 3s. = £9 15s. 0d. Under the new scheme he receives a children allowance of £40 + 30 = 70, or of £63 in terms of assessable income, which, being deducted from assessable income before calculating tax liability, reduces the total tax payable by 63 × 6s. = £18 18s. 0d.

The same consideration holds good of the old abatement and wife allowance, as compared with the new exemption allowed to a married couple. The former, in the case of a man with £700 a

year, was £70+50=120, the latter is £250. His saving in tax is increased from 120×3s.=£18 0s. 0d. to 225×6s.=£67 10s. 0d., *i.e.* it is nearly quadrupled. Owing to the change in the method of dealing with the allowances, etc., a much greater relief is granted to the man with family responsibilities than might appear at first sight. The excellent diagrams at the end of the Report show clearly how (1) single persons, (2) married couples without children, and (3) married couples with three children are affected by the proposals. I feel sure that all will agree that the additional relief afforded to married couples without children, and more especially to married couples with children, is fully justified.

The effects of the recommendations on the point just dealt with—viz., allowances, etc.—are distinctly more favourable than a cursory examination of them might suggest. In regard to the other point, I am afraid the position is rather reversed—second thoughts on the method employed to secure graduation reveal a drawback, as to the seriousness of which opinions may differ, but which to my mind is far from negligible. It is a problem which existed under the old scheme—the contrast between nominal rates of tax and effective rates of tax—but it is greatly magnified under the new scheme. An illustration will perhaps make the point clear. Under the old scheme a man, with a wife and two children, who had an earned income of £570, was liable to a nominal tax of 3s. in the £, but, owing to abatements and allowances, he only paid £53 5s. 0d., which on £570 is equivalent to an effective rate of approximately 1s. 10½d. If he saved £100 and invested it at 6 per cent., he had to pay tax at 3s. 9d. in the £ on his interest, this reducing his net interest from £6 to £4 17s. 6d. The effective rate on his whole income of £576 would be raised only very slightly, but that is not much consolation for paying the extra £1 2s. 6d. in respect of the additional £6 of income. Under the new scheme a man with the same dependents and the same salary of £570 will also be liable to a nominal tax of 3s. in the £, but as he will only pay £33 15s. 0d., his effective rate will be approximately 1s. 2⅜d. If he saves £100 and invests it at 6 per cent. he will have to pay tax at 6s. in the £ on his interest, thus reducing the £6 to £4 4s. 0d. The effective rate on the whole income will still be in the region of 1s. 3d., but that does not do away with the fact that for every addition to his income over £570 he will have to pay more than one-quarter of the increase in income tax. If I were paid £10 for doing some examining, I should receive £8 10s. 0d. net under the old scheme; under the new scheme I should receive only £7 6s. 0d. net. It was put to Mr. Hopkins, in cross-examination, that it was the tax

on the last increment that affected people and he replied :[1] "I think the super-taxpayer looks to a very large extent at the effective rate, that is the thing which matters in the end." The difference between the nominal rate on the last increment and the effective rate on the whole income was never so great in the case of super-taxpayers as will be the case with income-taxpayers under the new proposals. The difference between nominal rates and effective rates has always existed in the case of many income-taxpayers, but it will now exist in a much aggravated form, and I cannot help regarding it as a drawback to the new scheme, as I very much doubt if ordinary income-taxpayers do think in terms of effective rates, whatever the super-taxpayers may do. The Commissioners appear to recognise the difficulty to some extent by recommending [2] "that a statement of real effective rates of tax and of tax payable on specified incomes in various circumstances should form part of, or accompany, all income tax notices, including notices to pay." But, however comprehensive the statement is, it does not do away with the heavy burden of the tax on the last increment of income.

To counteract the effect on higher incomes of granting the exemptions and allowances to all incomes, the Commissioners recommend that the super-tax exemption limit shall be lowered from £2,500 to £2,000, and that the super-tax rates shall be raised by, roughly, sixpence all round. Exemptions and allowances are not to apply in assessing income for super-tax purposes.

The aggregation for income-tax purposes of the incomes of husbands and wives is to remain, but, instead of the old arrangement by which a man and his wife could have their incomes treated separately in so far as the wife's income was earned and the total joint income did not exceed £500, the marriage exemption of £250 is to be increased by £1 for every £1 of income earned by the wife, with a maximum exemption of £300. The allowance for life assurance premiums is slightly modified.

In regard to the scope of the tax, further relief is recommended in the case of double income tax within the Empire, but double income tax as between this country and foreign countries is to remain unchanged. In future, however, any relief granted to a resident in the United Kingdom is to be granted equally to a British subject residing abroad. On the other hand, an effort is to be made to bring at least some "casual profits" within the orbit of the tax.

The recommendations with regard to administration aim at simplification and the bringing of the law more into line with

[1] Q. 4321. [2] § 148.

existing practice. The duties of the General Commissioners and of the Additional Commissioners will be curtailed and the office of Assessor will be abolished, and, instead, more of the work will be concentrated in the hands of the Inspectors of Taxes—better known by their old name of Surveyors of Taxes. The evidence clearly shows that the bulk of the work to be transferred legally to them is already actually being done by these officials, so that the changes proposed in this matter are more nominal than real.

Certain important rearrangements in Schedules A, B, D, and E are recommended. Profits arising from railways, mines, gas-works, etc., are to be transferred from Schedule A to Schedule D, so that in future only the income from properties in respect of which the rental value is treated as the annual value will remain in Schedule A. The Commission would like to transfer all profits arising from the occupation of land from Schedule B, with its conventional basis of assessment, to Schedule D, but, for the moment, owing to the difficulties concerning the furnishing of accounts by farmers and the increased work which would be thrown on the administration by the change, a beginning is to be made by transferring to Schedule D all farms exceeding £300 in annual value and farms devoted to producing special crops, such as hops, or specially devoted to the breeding of pedigree stock. All employments now assessable under Schedule D are to be transferred to Schedule E, where the basis of assessment will remain the remuneration of the employee for the current year. In the case of the modified Schedule D, the preceding year's profits are to be taken as the basis of the liability, instead of the average of the three preceding years, as has commonly been the case up to now.

The Commissioners make numerous recommendations on a variety of special matters, such as the taxation of local authorities, the taxation of life assurance companies, and the prevention of evasion, to which want of space forbids detailed reference. There remains, however, one matter which must be discussed, namely, the taxation of co-operative societies. This subject gave rise to considerable differences of opinion amongst the Commissioners, thirteen supporting the Recommendations in the Report, whilst nine are opposed to them.

At present co-operative societies are liable to income tax under Schedule A in respect of land and buildings they own, and under Schedule B in respect of lands they occupy, but they are exempt under Schedules C and D. Members are not liable in respect of "dividends" on purchases, but are liable in respect of

interest on share and loan capital, but, by arrangement with the Board of Inland Revenue, the societies do not deduct tax on the interest they pay. The Report takes the view that the amount of the annual surplus refunded to members in the form of "dividends" on purchases is not profit liable to tax, but recommends that any part of the net proceeds which is not actually returned to members as "dividend" or "discount" is a profit that should be charged to income tax. Thus sums put to reserve as well as sums employed for paying interest on share and loan capital would be liable to tax. The Commissioners further recommend that the income derived from invested reserves should, irrespective of the particular mode of investment, be subject to tax. This amounts to removing the exemption under Schedules C and D. A co-operative society would thus be treated exactly as a limited liability company trading in similar circumstances and under similar conditions.

The chief reservation, which holds that *no part* of the surplus of a co-operative society which arises from transactions with its own members is properly assessable to income tax, is signed by Mr. Bowerman, Mr. Brace, Sir E. Nott-Bower, Sir N. F. Warren Fisher, Mr. May, Mr. Graham, and Professor Pigou. Two propositions are put forward: (1) That mutual trade, when a group of persons club together for a joint undertaking, cannot give rise to any profit; and (2) income tax is a tax upon the incomes or profits of individuals, and, though for convenience it is assessed upon corporations in which they hold interests, the amount of it is always adjusted to the income, not of the corporation, but of the individual shareholders.

It may be noted that the first proposition relates to "profits," the second to "incomes" or "profits." It is obvious that all "income" is not necessarily "profits," as, for example, a professor's salary, and it is quite conceivable that, although no "profits" may arise from mutual trading, "income" may arise from it. Take the case of a self-supporting village community in the Middle Ages. That was certainly a form of mutual enterprise, in connection with which very possibly no member made a "profit," but it seems quite clear that this mutual trading must have given rise to "incomes," as the members of the communities would very soon have exhausted their capital had they lived on that. So, presumably, they must have lived on "incomes" arising from their mutual enterprise, though it might be far from easy to obtain an accurate measure of those incomes. Dr. Stamp and Mr. McLintock, in their reservation, which supports the

general recommendations of the Report, distinguish between degrees of mutuality, and suggest that, as the mutual group grows bigger, the element of mutuality becomes more and more diluted and the business element becomes more and more predominant. Consequently, a point must be reached where "mutuality" must be abandoned as a ground for exemption. Income emerges which should be taxed; they hold that the true figure is indeterminate, but that the Recommendations of the Report provide a rough and ready rule for ascertaining the taxable income.

With regard to the second proposition in the chief reservation --that income tax is a tax on individuals and not upon corporations—I find it difficult to reconcile this view with the fact that municipal corporations and other local authorities are liable to income tax, under various headings, without any question of the amount of the tax being adjusted to the incomes of the individual ratepayers.

All the Commissioners appear to be more or less agreed that that portion of the surplus of a co-operative society which is refunded to members as "dividends" on their purchases is not taxable income. Thus the chief claim put forward by the private traders is definitely rejected. With regard to the Recommendations, the Report states: "We believe that there will be very little difference between the liability of co-operative societies under our proposals and under the existing legal position." This is presumably because, once the position of co-operative societies were assimilated to that of limited liability companies, the present tax payments under Schedules A and B would be available as a set-off against the liability on their taxable incomes as defined in the Recommendations. However interesting the question of the "profit" and "income" arising from mutual trading may be from an economic point of view, one cannot help feeling that the proposals and counter-proposals concerning co-operative societies contained in the Report and the Reservations are receiving far more public attention than their importance, from a revenue point of view, merits.

All economists owe a debt of gratitude to the Commissioners for the valuable piece of work which they have performed; but the chief testimony to the achievement of the Commission will always remain the fact that the Chancellor of the Exchequer and his expert advisers have promptly accepted all, or nearly all, of the Recommendations. Some have already been incorporated in the Finance Bill, and others are to be embodied in a new Income Tax Bill. The labours of but few Royal Commissions bear fruit so fully.

DOUGLAS KNOOP

Conditions of Employment of Dock Labour

Report by a Court of Inquiry Concerning Transport Workers—Wages and Conditions of Employment of Dock Labour. (55 of 1920. Price 3*d.*)

This inquiry, the first conducted under the Industrial Courts Act of 1919, has an importance of the same quality as had the Coal Commission, and in the end it may affect the wages of as many workers. In both cases, the whole circumstances of an industry were examined in public with a view, not of arriving at a decision binding on the parties directly concerned, but at informing public opinion, which in the Dockers' Inquiry was called the Higher Court to which appeal was made. The Dockers' Inquiry was conducted with the seemliness and part of the restraint proper to the Law Courts in which it was held; only accredited counsel and the Chairman took part in the examination of witnesses,[1] and the other members of the Court neither gave evidence nor took overt part in the proceedings. This procedure had the disadvantage that witnesses (though sworn to speak the whole truth) were limited to answering questions put by counsel or the Court, with such digressions as the Court allowed, and were unable to put forward a reasoned argument as is customary before Royal Commissions.

The Court was asked to report on ten proposals, relating to the establishment of minimum wages, regulation and payment of overtime, etc. In fact, they reported only on the first proposal (minimum wage of 16s. per day), recommended the establishment of a scheme of Whitley councils for the settlement of the other claims, and made recommendations (held to be necessary in connection with a minimum wage) for the decasualisation of dock labour. In the body of the report many paragraphs are devoted to the question of output and time-keeping.

The gist of the Inquiry and of the Report was the determination of the amount of the minimum wage, granted that its establishment was practicable and desirable. The dockers asked for a minimum of 16*s*. a day, that is 88*s*. for the recognised 44 hours week (5½ days of 8 hours). In London, prior to the war, the lowest rate of pay was 5*s*. 3*d*. for a nine hours day, and at the date of inquiry was 11*s*. 8*d*. for eight hours. The method of determining the minimum was novel; in effect most of the factors—pre-war rate, increase in cost of living, rates obtained in other

[1] Other members of the Court put a few questions through the Chairman.

industries, previous official awards—which have generally dominated wage decisions, were held to be irrelevant; and an attempt was made to decide *de novo* from first principles the sum that ought to be fixed. The difficulty of this procedure may be seen by reading carefully two "questions" put by the Chairman to Sir Leo Money[1]:—"As I understand, what you and this Court are asked to do is to consider what would be a fair standard of living, taking things as they are, and seeing what would be not a mere poverty-line standard but a standard of living which would recognise the citizenship of the worker—I will put it in that way; you know what I mean. . . ."

"I may put the two questions to you thus: the cost of living, in the ordinary sociological and statistical sense, means the expense that a family would be put to in providing itself with accommodation, sustenance and all the other elements of common life. . . ."

No wonder that diverse estimates were given of the cost of a standard described as in the first of these questions. Sir Leo Money put it at £5 3*s*. Mr. Bevin (for the dockers) put it at £6, in spite of the £4 8s. in the proposal. Sir Lynden Macassey (for the employers) estimated £3 17*s*. for London.

In a matter of such far-reaching importance, it might have been expected that in the Report would be found at least a careful statement of the reasons that led to the award of 16*s*. a day. It is in vain that the reader will turn through the discursive paragraphs to find any arguments which lead to a numerical decision. The Court "approved" of the view that "by the right to a better standard of living is not meant a right to have merely a subsistence allowance . . . , but a right to have life ordered upon a higher standard, with full regard to those comforts and decencies which are promotive of better habits, which give a chance for the development of a greater sense of self-respect, and which betoken a higher regard for the place occupied by these workers in the scheme of citizenship." Implicitly then, the Court recognised a better standard of living as a right, not merely as an ideal. A little further on reference is made to the ravages of war and the folly of basing "calculations upon the footing of a quick return to easier conditions." Then the Report deals with quite different subjects without any attempt to show how a higher standard of living is compatible with more difficult conditions of production. There follows a discussion of the uncertainty of the

[1] From the official shorthand notes. The evidence has been or is to be published.

receipt of a full week's wages, of the method of increasing output, of better organisation of employment and management, and of the competition of foreign ports. Then abruptly we reach the dominant paragraph of the Report, which must be quoted *in extenso*. "To a trade thus situated, it does seem a strong demand that a claim for 16*s*. a day should be made on the part of labour: but to labour, situated as described, it seems a natural and just thing to demand that its conditions should be made to square with the circumstances and the pressing and vital needs of the hour as already described. After much consideration, the Court has come to the opinion that the claim of 16*s*. per day should be conceded, on the footing that the hopes held out on behalf of the men of increased output shall not be frustrated; that on this footing the claim is supported by justice, and should be granted, as it is now recommended by this Court, with a broad appeal to the honour of the men."

In a minority report, objection is taken both to the proposal to establish a national minimum rate and to the amount at which it is proposed this rate should be fixed. It is pointed out that railway porters (whose work is similar to the less heavy tasks of the dockers) get only 61*s*. for 48 hours. It is argued that there will be a general claim among unskilled labourers for 2*s*. an hour, and that artisans will demand an increase to restore their relative position.

Since the issue of the Report, the Port authorities, without waiting for any clear verdict from the "Higher Court of Public Opinion," have given effect to the recommendation of the 16*s*. minimum, and the other proposals appear to be in fair way of realization.

There seems to be a reasonable expectation that a considerable improvement will be effected in the conditions of dock labourers, and that the traditional struggle for a few hours' work at low rates of pay by the derelicts and failures from other occupations will be only a memory of the past. This will be a great and notable achievement. But whether it is possible that unskilled wages at the level in purchasing power represented by 88*s*. a week in March, 1920, with the higher wages for artisans that correspond to this sum, can be maintained in the large towns of this country in the short working week now established, is a question which the Court did not consider, and few persons acquainted with the existing economic situation will answer it in the affirmative.

Readers of the ECONOMIC JOURNAL may well regret that a Court of such importance should have given its award without

any apparent regard to the economic principles by which the maximum height of wages in general must ultimately be limited.

A. L. BOWLEY

CURRENT TOPICS

THE Annual Meeting of the Royal Economic Society was held at the Surveyors' Institution on Wednesday, May 19th. The Council and Officers for the current year were appointed as set forth on the cover of this issue of the JOURNAL, and the Accounts of the Society for the past year, which had been already circulated to all members, were duly approved. Mr. H. D. Henderson and Mr. R. G. Hawtrey were appointed Auditors of the Accounts for the current year. The Chair was taken by the President of the Society, Viscount Haldane, and the Society was addressed prior to the transaction of the formal business by Mr. Clynes. This address on the subject of Food Control in War and Peace, for which members of the Society present expressed their great gratitude to Mr. Clynes, is printed as the first article in this issue of the JOURNAL. The paper was followed by a brief discussion in which part was taken by Professor Bowley, Mr. J. M. Keynes and Lord Haldane.

THE following have been elected to membership of the Royal Economic Society :—

Arnott, D. (life)
Banco de Chile, London
Beohar, R. D.
Bhatnagar, Prof. B. G.
Blanco, A. R. R.
Boddington, A. L.
Borah, A.
Bose, S. C. (life)
Burnet, P. (life)
Cartwright, C.
Commercial Banking Company of Sydney Ltd.
Comstock, Miss A.
Devlin, J. E.
Devine, E. T. (life)
Doherty, V.
Dorr, J. V. N.
Dubey, D. S.
Edwards, R. E. (life)
Eidlitz, O. M. (life)
Einzig, P.
Falk, Erling.
Fraser, G. C. (life)
Ghatalah, M. H. P. (life)
Gibson, T.
Gooby, A. H.
Graul, I.
Green, L. B.
Gupta, A. P.
Hamilton, A.
Hardman, J.
Harris, E. R.
Haslam, W. H.
Hawtrey, R. G.

Hongkong and Shanghai Banking Corporation.
James, F. W.
Kanshala, R. S.
Lund, Fin (life)
Macafee & Company Ltd.
Macphail, J. D.
McWilliam, Mrs. E.
Majumdar, J. N. (life)
Meyer, E., Jnr. (life)
Murphy, W.
Niyogi, J. P. (life)
Olliver, G. H.
Paterson, Rev. A. N.
Peace, E.
Picken, A.
Rav, U. S.
Romanes, J. H. (life).
Sealy, E. D.
Smith, V. C.
Solfleet, G.
Sondhi, Prof. G. D. (life).
Sydenham, J.
Tarrant, E. F.
Tayler, J. B.
The Mitsubishi Bank Ltd.
The Yokohama Specie Bank Ltd.
Union Bank of Canada.
Williamson, W. J. (life).

The Statistiske Centralbyraa, Kristiania, has been admitted to library membership.

We are informed that it has been decided to raise a memorial to the late Charles Booth, formerly a Vice-President of the Royal Economic Society, who died in November, 1916. Charles Booth was born in Liverpool, and lived there for a large part of his life, an interesting part of his work of investigation having been conducted there. Liverpool is still the headquarters of the great businesses founded by him and his brother Alfred. It has been thought right, therefore, that a memorial to him should take the form of an endowment of some object in connection with Liverpool University. The Council of that University have pledged themselves that in the event of a sum of money being handed to the University sufficient to endow a Chair for their Social Studies School, they will call it "The Charles Booth Chair." For such an endowment those connected with the appeal think it necessary to raise £50,000. Donations, which may be spread over three years, may be sent to the Bank of Liverpool and Martins, Water Street, Liverpool. Any communication relating to the proposed memorial should be forwarded to Mr. Jesse Argyle, Stanfield House, High Street, Hampstead, N.W.3, who is acting as Secretary to the Memorial.

On February 23rd, 1920, Professor Karl Menger celebrated his eightieth birthday. The occasion was utilised by many universities and learned bodies to shower honours on the venerable

economist, whose personality is as winning as ever, and who deserves well of economists all the world over. He has been rightly termed the "Father" of the Austrian school, which lays great stress on psychological analysis. His marginal theory of value has met with widespread acceptance, and his use-theory of interest is regarded with respect. As far back as fifty years ago Menger elaborated his particular contributions to economic science in a book that has won fame in the Old and the New World—*Grundsätze der Volkswirtschaftslehre*. It is interesting to recall that this volume was published in the same year as Jevons' *Theory*. Dr. Marshall brackets Menger with Jevons as "mathematical in tone" at least (note to p. 149 of the first edition of the *Principles*) and also as a critic of the classical doctrine of value in relation to cost. Menger has been fortunate in his colleagues and his disciples. Among the former may be included men of the fame of J. B. Clark, Pierson, and Gide, all of whom have endorsed his main theories; among the latter the best known is perhaps Philippovich, who has done much to spread Menger's theories among German-speaking students by enunciating them in his remarkable text-book.

A NEW ZEALAND correspondent writes:—

"New Zealand is in the midst of a land boom and prices are soaring. As in Britain, the housing difficulty is acute, and here the action of the Government in lending sums up to about £1,000 to returned soldiers in order to buy houses has started an almost ludicrous boom in real estate. The Dominion has made a great deal of money from the war, and, though the cost of living is high, the prosperity of all classes is everywhere apparent. With food so much cheaper the cost of living is probably the same as in England, perhaps a little less; but wages are high, and unemployment is practically non-existent. Minimum rates of wages as fixed by the Arbitration Court are of the order of 1s. 6d. per hour for labourers and 2s. per hour for skilled workers; but the actual wage carpenters are getting now is more like 2s. 6d., plumbers 3s. per hour, and the gutter-sweepers are paid by the City Council 14s. per day. I suppose this will keep up as long as the demand for our products remains insistent; but one dreads a credit smash, which will be all the worse because of our land speculation."

THE institution of Commerce Degrees by the University of London has led to the extension of the London School of Econo-

mics by the addition of a new wing. The King laid the foundation-stone of the new building on May 29th. In the course of a felicitous address his Majesty remarked: "Three centuries ago Francis Bacon had censured the universities of his own age as the homes of ignorant dogma and sterile disputation. The bad and narrow tradition which was then attached has long since disappeared, and the circle of academic studies has been steadily enlarged . . . without injury to the claims of a broad and humane education." There were deposited under the foundation-stone a set of coins of the 1920 currency and a copy of Professor Cannan's *Wealth*. It was thereby intended, no doubt, to express the truths that commerce is founded on sound money and right theory.

WE regret to announce the death at Munich of Professor Max Weber, at the age of 56.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

MARCH, 1920. *The Organisation of Imperial Statistics.* C. H. KNIBBS. The Commonwealth statisticians design an imperial Statistical Bureau and other improvements. *The Food Supply of Germany during the War.* E. M. STARLING. The average German received less than two-thirds, a bachelor only half of the amount necessary for health and efficiency. "Three years on a diet insufficient as to quantity and quality, indigestible, tasteless, and monotonous has had a marked effect on the vitality of the urban population." *Frequency Distributions with Multiple Happenings.* MAJOR GREENWOOD and G. UDNY YULE. Poisson's Series (for small probabilities) is considered and improved, with special reference to repeated accidents or attacks of disease. *Density and Death-rate.* J. BROWNLEE. Farr's law that the death-rate was proportioned to the *eighth root* of the density of population is justified by more exact statistics, which show proportion to the *tenth* root.

Quarterly Review.

APRIL, 1920. *The Economics of the Peace.* A criticism of Mr. Keynes' book. *A National Industrial Council.* C. E. FAYLE.

The Edinburgh Review.

APRIL, 1920. *The Government and Wages.* *Discontent in Industry.* SIR LYNDEN MACASSEY. The report of the Industrial Conference [Cmd. 501], and the Declaration of the Supreme Council of the League of Nations (8th March, 1920) suggest the enquiry "whether there is anything in the obsession of so many workmen that the capitalist can be eliminated from industry."

The Nineteenth Century.

MAY, 1920. *Where is Labour Going?* VICTOR FISHER. *Sweated Home Workers.* S. K. PHELPS.

The Quarterly Journal of Economics (Cambridge, Mass.).

FEBRUARY, 1920. *The Present Condition of Economic History.* N. B. GRAS. *The Cost of Living for Working Women.* DOROTHY DOUGLAS. A criticism of current themes. Prof. Taussig (in the *Quarterly Journal*, of May, 1916) should have assigned to the working daughter at home part of the upkeep of the housekeeping mother. To base the woman's minimum, like the

man's (*Monthly Labour Review*, Nov., 1918), on the obligation to support dependents is absurd. The cost of living of a woman "adrift" is reckoned to be (in Philadelphia, 1919) $9.05. The corresponding expenses of the woman at home would be about $7·8; but to this "the daughter's share of the mother's expenses" should be added. *Railroad Valuation by the Interstate Commerce Commission*. II. HOMER B. VANDERBLUE. *What is Rural Economics*. JOHN IVE. *The Government and the News-print Paper Manufacturers*. E. O. MERCHANT. The results of price-fixing hardly compensate its expensiveness. *The Scope and Nature of the Labour Turnover Problem*. S. H. SHICHTER. The concepts of "separation rate" and "replacement rate" are balanced. *The Separation of Railway Costs between Freight and Passengers*. J. H. PARMELEE.

The American Economic Review (Cambridge, Mass.).

MARCH, 1920. *The Nature of our Economic Problem*. HENRY B. GARDNER. *American Experience with Workmen's Compensation*. WILLARD C. FISHER. *A New York Experiment in Business Co-operation*. E. J. CLAPP. *Call Rates and the Federal Reserves Board*. J. D. MAGEE. The maximum of call rates in 1919 was 30 per cent., not entirely due to the "warnings" of the Board. A 15 per cent. call rate has not discouraged speculation. *The Progress of State income taxation since 1911*. H. L. LUTRY. *Reciprocal or Inter-Insurance Against Loss by Fire*. J. A. FITZGERALD.

Journal of Political Economy (Chicago).

JANUARY, 1920. *The Regulations of Rentals During the War Period*. E. L. SCHAUB. *Who Paid for the War?* JACOB VINER. Referring to Prof. Davenport's article (in the *Economic Review* for March, 1919) that Labour has already paid the main cost of the war (to America) and will pay it over again.

MARCH, 1920. *Will Agricultural Prices Fall?* E. G. NOURSE. A relatively low price level for agricultural products, comparable with that of latter part of the nineteenth century, is anticipated from the exploitation of new lands and improvements in technique. *Causes of, and Antidote for, Industrial Unrest*. HORACE B. DRURY. "The people of America will not be satisfied until the whole of the gigantic new machinery of production has been made subservient to the public interest, and until the anomaly of great industries manipulated in the interests of a few has been cleared up." *Proprietors' Salaries*. W. A. PATON. Referring to the Revenue Act of 1918.

APRIL. *Railroad Valuation as a Working Tool*. J. M. CLARK. *The Illinois Blue Sky Law*. J. WATERHOUSE ANGELL. An appreciation of the new American effort to solve the problem of fraud in the handling of securities. *An Appraisal of Carver's Economics*. H. G. MOULTON. The work reviewed in the ECONOMIC JOURNAL, Vol. XXIX (1919), is rather appraised than praised. *Economic Implications in the Psychological Theory of Interest*. H. D. KITSON. *The Kansas Court of Industrial Relations*. W. E. ATKINS.

The Review of Economic Statistics (Cambridge, Mass.).

APRIL, 1920. This number contains, besides the usual monthly survey of general business conditions—in the light of the "index" and certain "series"—a summary of an article published in full as an appendix to the April number, on "The Future of our (American) Foreign Trade." The total capital invested abroad is $12,000,000,000. But interest on this, owing to the funding arrangements with the Allies, will not immediately affect the balance of trade, which will probably continue to show an excess of imports for some years.

L'Egypte Contemporaine (Cairo).

NOVEMBER, 1919. *Statistics as an Instrument of Business Efficiency.* DR. I. G. LÉVI. An address to the Egyptian Higher School of Commerce on the utility of statistics. The author, who is Acting Controller of the Statistical and Census Department in Egypt, urges the necessity for the teaching of statistics in the secondary and higher technical schools.

MARCH, 1920. *Draft Laws for Reconstituting the Mixed Courts.* A first instalment of the proposals of the Milner Commission.

Journal des Économistes (Paris).

JANUARY, 1920. *Le Marché financier en* 1919. A. RAFFALOVICH. *Obligations émis par le Crédit National.* A. BARRIOL et I. BROCHN. *Liquidation des biens et des Sociétés ennemis par le traité de Versailles.* S. TCHERNOFF.

FEBRUARY. *Une Journée au Parliament Britannique.* W. M. J. WILLIAMS. The 1st December was remarkable for, *inter alia,* the rejection of Mr. Bottomley's scheme for lottery bonds. *L'État et le Monopole des Assurances.* C. DE NOUVION.

Revue d'Économie Politique (Paris).

JANUARY-FEBRUARY, 1920. *Le Salaire minimum dans l'agriculture de l'Angleterre et du Pays de Galles.* ACLAND. *Esquisse d'une Conception et d'une ordonnance Scientifique de l'Economie.* C. BODIN. *Le "Bullion Report" Anglais de* 1810. A. MAWAS. Not based on Prof. Cannan's study. *La Socialisation des Mines en Allemagne.* LE NORMAND. New administrative organs, but not a catastrophic change, are expected.

MARCH-APRIL, 1920. *Le Régime Monétaire du Maroc et la Crise du Nassani.* J. LORIOT. The Moroccan silver currency of Nassani has been affected by the rise in the value of silver. *Notes d'urbanisme.* G. RISLER. On town-planning. *Conception et Ordonnance Scientifiques de l'Économie.* C. BODIN. First principles. *La Question du Change vue de Suisse.* J. MORET. *La Réforme Belge.* B. S. CHLEPNER. A continuation of the series *Réformes Financières.*

Scientia (Bologna).

APRIL, 1920. *Les Perspectives du Capitalisme.* H. CAHN.

Giornale degli Economisti (Rome).

FEBRUARY, 1920. *La soluzione dei problemi finanziarii dopo la guerra nella letteratura italiana.* B. GRIZIOTTI. *La teoria di Ricardo sui diversi effetti del prestito e dell' imposta.* G. SENSINI.

MARCH. *Lo Studio Scientifico dei fenomeni finanziarii.* G. BORGATTA. *Studi e previsioni sulle Variazioni dei prezzi* G. M.

La Riforma Sociale (Turin).

JANUARY-FEBRUARY, 1920. *La Nuova Opera di Alfredo Marshall.* ACHILLE LORIA. An enthusiastic tribute to the author of *Industry and Trade.* A few unimportant criticisms are not inconsistent with "unbounded admiration" for the author and the book. "Scientific in the highest and most genuine sense of the term, soaring above the low walks of political rivalries in the regions of pure thought, he [Marshall] brings to the investigation of the most difficult social problems that unclouded (*immaculeta*) and exalted serenity which is the divine gift of the wise."

Revista Nacional de Economia (Madrid).

NOS. 20 and 21, 1919. *Questiones que plantea la Baja del Cambio internacional.* CHRISTÓBAL MASSÓ. *Congresso Nacional de ingeneria.* JOSÉ BORES. *La Obra Financiera del Sr. Bugallal.* E. LUIS ANDRÉ. *Viscaya y America.* JULIO DE LAZUSTEGUI. The economic relations between Viscaya and America are traced from early times.

NEW BOOKS

English.

BEVERIDGE (SIR WILLIAM), K.C.B. The Public Service in War and Peace. London: Constable. 1920. Pp. 63. 2*s*.

[A lecture delivered at the London School of Economics, dealing with the alleged principal vices of the Civil Service and with suggested reforms.]

BOWLEY (A. L.). The Change in the Distribution of the National Income, 1880-1913. Oxford: Clarendon Press. 2*s*.

CLIFFORD (J.) and Others. The Industrial Future. In the light of the motherhood ideal. London: Allen and Unwin. 1919. 2*s*. 6*d*.

COLE (G. D. H.). Social Theory. London: Methuen. 1920. Pp. 209.

COLLINGS (RIGHT HON. JESSE) and SIR JOHN L. GREEN, O.B.E. Life of the Right Hon. Jesse Collings. With an introduction by the Right Hon. Austen Chamberlain, M.P. Longmans, Green. 1920. Pp. 310.

COTTON (C. W. E.). Handbook of Commercial Information for India. Calcutta: Superintendent Government Printing. 1919. Pp. 383.

[This handy handbook presents a bird's-eye view of British India; foreign trade, exports and commercial organisations are prominent topics. The author is the Collector of Customs at Calcutta.]

CUNNISON (JAMES). Economics. London: Methuen. 1920. Pp. 162.

["This book is written for the general reader," according to the published description.]

DAVIES (EMIL). The Case for Nationalization. London: Allen and Unwin. 1920. Pp. 310.

"Economist." The Economic Crisis in Europe. London: British Periodicals. Pp. 31.

FAY (C. R.). Life and Labour in the Nineteenth Century. Cambridge University Press. 1920. Pp. 319. 20*s*.

[To be reviewed.]

Federation of British Industries. Pp. 28.

[The depreciation of the dollar, Foreign exchange fluctuations, the price of gold and silver and other interesting variations are exhibited with some suggestive explanations.]

GOUGH (GEORGE W.) Half-past Twelve Dinner-hour Studies for the Odd Half-hour. London: Sells. 1*s*. Pp. 77.

GOUGH (G. W.). Talks with Workers on Wealth, Wages and Production. London: Pitman.

[This originally appeared in the *Times Trade Supplement*, and is technically anonymous, but the Editor says that Gough did the "lion's share of the work." To be reviewed.]

HOBSON (S. G.). National Guilds and the State. London: Bell. P. 406.

[Reviewed above.]

HODGES (FRANK). Nationalisation of the Mines. With foreword by the Right Hon. J. R. Clynes, M.P. London: Parsons. 1920. Pp. 170. 4*s*. 6*d*. net.

JONES (J. HARRY). Social Economics. London: Methuen. 1920. Pp. 239.

[To be reviewed.]

JONES (MARDY). The Good Government of Glamorgan. The case for county borough areas. Introductory chapter by P. Llenfer Thomas, stipendiary magistrate. Published by the Author. 1920. Pp. 39. 1*s*. 3*d*.

[A readjustment of local government areas in South Wales is advocated. To be reviewed.]

LESCHIER (DON D.). The Labour Market. London: Macmillan. Pp. 338. 12*s*. net.

LORIA (ACHILLE). Karl Marx. Authorised translation from the Italian. London: Allen and Unwin. 2*s*. 6*d*. net.
[To be reviewed.]

MORELAND (W. H.). India at the Death of Akbar. An economic study. London: Macmillan. 1920. Pp. 328. 12*s*.
[To be reviewed.]

Oxford Tracts on Economic Subjects. 1919-20. Nos. 1-7; with Introduction. London: Humphrey Milford. Oxford University Press. 1½*d*. each.
[To be reviewed.]

PURINGTON (E. E.). Personal Efficiency in Business. London: Pitman. 1919. Pp. 341. 7*s*. 6*d*. net.

PENZER (N. M.). Cotton in British West Africa. London: Federation of British Industries. 1920. Pp. 43. 5*s*. net.

REES (J. F.). A Social and Industrial History of England. 1815-1918. London: Methuen. 1920. Pp. 197.

SELLEY (E.). Village Trade Unions in Two Centuries. London: Allen and Unwin. 1919. 3*s*.

SMIDDY (T.). The Organization of Labour. London: Methuen. 1919. 5*s*.

SNOWDEN (PHILIP). Wages and Prices. London: Faith Press. 1920. Pp. 124. 1*s*. 6*d*.

State debt and the National Capital. A new proposal for Reconstruction and Redemption. London: Methuen. 1920. Pp. 78. 2*s*. 6*d*.

STRAKOSCH (HENRY). The South African Currency and Exchange Problem. Johannesberg: Central News Agency. 1920. Pp. 31.

Trade Unions and Output. (Reorganisation of Industry Series, VII, Ruskin College.) London: P. S. King. Pp. 70. 1*s*.
[To be reviewed.]

WARD (J. S. M.) and N. E. CRUMP. Financial Review of 1919.

WHITE (BENJAMIN). Silver (Pitman's Common Commodities and Industries Series.) London: Pitman. Pp. ix + 144. 6*s*. net.

WITHERS (HARTLEY). The Case for Capitalism. London: E. Nash. Pp. 255. 7*s*. net.

ZORN (JOHN). Thoughts on a Capital Levy. London: St. Clement's Press. Pp. 50. 2*s*.
[The substance of articles published in the *Daily News* in November and December, 1919. It is argued "that a special levy on profits made during the period of the War would be both impracticable and unjust," that there is no alternative to a capital levy but (*a*) a crushing income-tax or Profits Tax, or (*b*) Bankruptcy.]

American.

American Economic Association. Papers and Proceedings of the Thirty-second Annual Meeting. (Supplement to the *American Economic Review.*) Princeton. 1920. Pp. 280.

[Among the subjects discussed were *British experience with excess profits taxation*; *Germany's Reparation Payments,* introduced by Prof. Taussig, with special reference to the incidence of huge foreign remittances; *Some probable results of a balanced industrial system,* introduced by Prof. Carver, showing that a due proportion among the factors of production would realise all the results for the sake of which revolutionaries would destroy free contract. *Employees' Representation in Management of Industry,* by R. Mocher; *Prices and Reconstruction,* by Wesley Mitchell; *Banking Policy,* by H. G. Moulton.]

ANDERSON (V. N.). Effects of the War on Money Credit and Banking in France and the United States. (Preliminary Economic Studies of the War, Carnegie Endowment.) Oxford University Press. Pp. 227.

CARLTON (F. TRACY) Elementary Economics. An introduction to the study of Economics and Sociology. New York: Macmillan Co. 1920. Pp. 212.

[The writer is Professor of Economics in De Pauw University.]

CARVER (T. N.). War Thrift. Government Control of the Liquor Business. (Carnegie endowment for international peace. Preliminary Economic Studies of the War.) Oxford University Press. 1919. Pp. 192.

DAVIS (PHILIP). Immigration and Americanization. Selected Readings. Boston: Ginn and Co. Pp. 770.

KIMBALL (EVERETT). The National Government of the United States. Boston: Ginn and Co. Pp. 629.

[The writer is Professor of Government, Smith College.]

SONNICHSEN (ALBERT). Consumers' Co-operation. New York: Macmillan Co. Pp. 223. 9*s*. net.

SU SEE (C.). The Foreign Trade of China. (Columbia University Studies, Vol. lxxxvi.) New York: Longmans, Green. 1919. Pp. 451. $3.50.

TURNER (J. ROSCOE). Introduction to Economics. London: Allen and Unwin. Pp. 641.

[The author is Professor of Economics at New York University. The book is introduced as "an outgrowth of classroom discussions."]

War and Reconstruction. Economic trends of 1860-70. Brookmore Economic Service. New York. Pp. 30.

["A statistical picture of the Civil War and of its reconstruction period"; by way of parallel or contrast to present conditions. Two striking features of the reconstruction period were (1) a great expansion in the production and consumption of commodities, and (2) a great decline in their prices. These and minor traits are exhibited in the charts which occupy five-sixths of the volume.]

Italian.

CENCELLI (ALBERTO). La Proprieta Colletiva in Italia. Milan. 1920. Pp. vi + 216.

PRATO (GIUSEPPE). Fatti e dottrine economiche alla vigilia del 1848. Turin. 1920. Pp. 352.

SCALIA (CARMELO). Il Materialismo storico e il Socialismo. (Raffronti critici fra Carlo Marx e Achille Loria con prefazione di S.E. il Cardinal Maffeo). Milan. 1920. Pp. x + 415.

French.

ANDLER (CHARLES). Le Socialisme impérialiste dans l'Allemagne contemporaine. Paris: Bossard (rue Madame, 43).

BERTRAND (ELIE). L'Enseignement technique en France et en Allemagne. Paris: Alcan.

GLOTZ (GUSTAVE). Le Travail dans la Grèce ancienne. Paris: Alcan.

JOUHAUX (E.). Le Syndicalisme et la C. G. T.

MILHAUD (EDGARD). La Marche au Socialisme.

Spanish.

BERNIS (FRANCISCO). Fomento de las exportaciones. (Biblioteca de cultura moderna). Barcelona: Editorial Minerva. Pp. 232.

[This treatise on the means of encouraging exportation seems to have been in large part prepared some years ago under the auspices of the Commission appointed to consider such means. The introduction, on the Spanish national economy, was written in 1917.]

German.

BAUER (OTTO). Bolschewismus oder Sozialdemokratie. Vienna: Volksbuchhandlung. Mk. 7.50.

RATHENAU (WALTHER). Was wird werden? Berlin: Fischer. Mk. 2.50.

THE ECONOMIC JOURNAL

SEPTEMBER, 1920

A LEVY ON CAPITAL

ITALIAN LAW AND ITS PRECEDENTS.

Summary.

1. THE various points of view from which a levy on capital may be considered, viz., economic, social and political. The levy on capital proposed in Italy for political purposes and abandoned on account of economic difficulties.

2. The opinion of Italian experts—politicians and officials almost unanimously adverse to a levy on capital.

3. The advantages and disadvantages of a levy on capital.

4. The ultimate object of the Government in suggesting a levy on capital and the tasks entrusted to the Advisory Commission and the Technical Committee.

5. The general principles of the Technical Committee's scheme for a levy on capital and a tax on increases of wealth arising from the war.

6. The export of capital abroad and the ceasing import of capital from other countries.

7. Transitory nature of the actual values of various categories of capital.

8. The impossibility of carrying out with celerity a valuation of wealth.

9. The dissatisfaction of holders of bearer securities.

10. The anticipated necessity of realisations on a large scale and the apprehended disorganisation of economic life.

11. The simplifications made possible and the exemptions rendered opportune by transforming the levy on capital into a thirty-year tax on wealth.

12. The abandonment of a forced loan and the issue of a new

voluntary loan. The new scale of contributions and the abolition of deductions.

13. The assessment of the tax on increases of wealth.

14. Conclusion.

1. The discrepancies in the final judgments arrived at concerning the expediency or otherwise of the imposition of a levy on capital are attributable, in my opinion, only in part to the varying degree of importance attached to its undeniable advantages and to its equally incontrovertible disadvantages, but are due to a greater extent, perhaps, to the different points of view from which the levy on capital is regarded.

The levy on capital can indeed be regarded from *an economic standpoint* when it is conceived as a measure best adapted to extricate the State from its financial embarrassments with the least possible detriment to the national economic system. It is precisely from this aspect that the levy on capital is generally considered and discussed by students of economy and finance. And it is principally, if not exclusively, from this aspect that it has been examined and rejected by the Parliaments of France and England.

But the levy can also be regarded from *a social standpoint* as a means for the expeditious adjustment of fortunes rendered unduly disproportionate by the effects of the war or by the previous system of accumulation under the *régime* of capitalism. Regarded from this point of view, it is a secondary consideration whether or no it becomes temporarily detrimental to the national economic system. It is precisely from this standpoint that the levy on capital was considered and imposed by the Bolshevik Russian Government.

Finally, the levy on capital may be regarded from *a political standpoint*, whether it be considered, on the part of a defeated nation, as a means of speedily realising an indemnity in order to pay the victors and thus achieve emancipation from an irksome economic burden, or whether it presents itself as a precaution likely to placate the dissatisfied and to curry favour with the poorer classes, and, as it were, an insurance premium on the part of the capitalist classes against revolutionary movements and a more drastic confiscation of wealth.

Political arguments of the first type were adduced in favour of the levy on capital in France after the defeat of 1870; and similarly to-day, although they may not constitute the sole stimulus, they lend strong support to the proposal for imposing a levy in Germany.

Political arguments of the second type were certainly decisive in causing the inclusion of the capital levy in the programme which the Nitti Ministry submitted to the Chamber of Deputies in July, 1919.

The responsible members of the Government had not at that time sufficiently pondered the economic importance of the measure in question. Only by degrees, after conferring with experts and being obliged to reply to protests raised by the more seriously affected interests did they fully appreciate its difficulties and disadvantages. Finally, after protracted indecision, the levy on capital was abandoned. What is imposed by the Royal Decree of November 24th, 1919, referring to the extraordinary tax on property,[1] is not really a levy on capital, but an ordinary tax on wealth, limited to a period of thirty years.

2. Italian students were drawn into the discussion of a levy on capital by publications which appeared in foreign countries, especially in England. The investigations made by Lawrence, Pigou, Arnold and Hook—all of them favourable to the levy—found a ready echo in Italy. But further reflection induced the vast majority of our economic specialists to form a different opinion, and this not only from a consideration of the general disadvantages inherent in a levy on capital, but also from a consideration of the special disadvantages which its application would have encountered in Italy. Nor had the idea of the levy on capital met with much favour from the high officials, or in political circles, with the exception of some members of the Socialist Party.

3. It is true that there are some obvious advantages in a levy on capital. But are they, it has been asked, sufficient to compensate for the certain disadvantages and for others more uncertain which may be feared from so radical a measure?

The advantages consist in the liquidation, at an auspicious moment, of a large part of the national debt, in the restoration of elasticity to the nation's balance sheet, and in the diminution of the dissociation of income from labour which checks production and threatens social order.

Among the certain disadvantages is the flagrant injustice—so far as the victorious countries are concerned—to the present generation who, having borne the evils and losses of the war, would also have to sustain a quite disproportionate part of its financial burdens, entirely for the benefit of future generations who will enjoy the fruits of their victory. There is also the

[1] *Cf.* Royal Decree, No. 2169, in the *Gazzetta Ufficiale del Regno d'Italia*, November 26th, 1919.

difficulty encountered by the majority of the taxed in meeting their obligation, and there are further grave consequences, viz., the disturbance of prices, the depreciation of property which cannot be used for payment of the levy and the unwarranted appreciation of securities which can be so used, the uncertainty affecting contracts, an excessive demand for loans which might well bring about a general credit crisis, frequent indebtedness on the part of manufacturers, business men and agriculturists who may not be in a position to realise at short notice the share of their capital demanded of them; and their debts—let it be noted—will be for sums the real value of which would increase simultaneously with the fall of prices, thus aggravating the crisis —resulting from that very fall of prices—which the *entrepreneurs* and with them the capitalists (the two classes being practically the same) will, in all probability, have to face after this war as after all wars.

Many and grave are the doubtful issues in connection with the levy. What will be the duration and the cost of its collection? What fiscal troubles will result from it? What will be the opposition of the taxpayers to a levy which will, of necessity, claim a very high percentage? What anomalies in the incidence of taxation will follow? Finally, what will be the effect of the levy on the creation of wealth and on the emigration and immigration of individuals and of capital? Will not the fear of a repetition of the levy prove a greater obstacle to the accumulation of wealth than is that burden of taxation which the capital levy seeks to diminish? And what will be its actual result when the variations in prices which may be expected from it and the extent of evasion are taken into account? Will the alleviation of the pressure of taxation in the future be commensurate with the weight of the present burden and the dislocation of the entire economic system of the country?[1]

4. In view of the foregoing, it is easy to understand that deputies and students of the problem experienced a feeling akin to surprise when Signor Nitti, who had been appointed Prime Minister, solemnly announced to the Chamber of Deputies that his Government had decided on the imposition of a levy on capital.[2] That the measure had been prompted by political

[1] For the special disadvantages which the levy on capital would have occasioned in Italy, *cf.* the articles "Sul problema finanziario del dopo guerra," in *Supplemento economico del Tempo*, January 3rd, February 3rd and 20th, March 20th, 1919, then collected in a volume by the *Biblioteca economica del Tempo*, 1919.

[2] July 9, 1919.—A concrete statement of the Government's proposal was made by the new Minister of the Treasury, Signor Schanzer, in his speech on the financial situation in the Chamber of Deputies on the following day.

motives was obvious to anyone who recalled the contrary opinions which had been expressed on former occasions by the Prime Minister and the new Finance Minister, Signor Tedesco. There was even a general impression that the scheme had been suggested not so much because of any real dangers of more radical demands on the part of the working classes, as from a desire to secure their favour for the new Government, which had been formed amidst unusual difficulties and was strenuously opposed by a large part of the nation.

Moreover, the political character of the scheme was clearly revealed by Signor Tedesco when, on August 4th, 1919, he inaugurated the labours of the Commission specially appointed to put forward the financial proposals. Among the members of this Commission were many university professors, the heads of the most important departments in the Finance Ministry and the Treasury, and representatives of both Chambers, chosen from those whose opinions on financial matters carried most weight. The great majority of them had on various occasions shown themselves opposed to a levy on capital. But, as Signor Tedesco stated explicitly, the Commission was not appointed to determine the expediency or otherwise of the scheme already decided on by the Government, but merely to suggest the technical expedients whereby the levy might be collected in the best possible way without departing from certain essentials. Their task was to levy an extraordinary tax on wealth, to be paid in a few years by annual instalments, small fortunes being exempt. The scale of rates was to be steeply graduated, and the rate was to be heaviest in the case of wealth derived from war profits. The Government intended to obtain from the levy the sum of It. *lire* 20 milliards, which would be applied to reducing the quantity of notes in circulation and to the redemption of part of the national debt.[1]

The Commission, with the greatest loyalty, carried out the duties entrusted to it, laying down in a series of arduous sessions the main lines of the Bill. From its members a Technical Committee was selected by the Minister himself, consisting of Comm. Benettini, Professors Cabiati, D'Aroma, Einaudi, Griziotti, and the author of the present article, and to them was entrusted the task of preparing a final draft of the Bill. With the assistance of other officials in the Finance Ministry, the Committee quickly evolved a Bill whose provisions were inopportunely communicated

[1] The declarations of the Minister of Finance were quite uniform with those of his colleague, the Minister of the Treasury, in the Chamber of Deputies at the sitting of July 10th, 1919.

to all the members of the Government and to leading financiers, and soon became public property.

5. Following the general principles laid down by the Government and the more specific directions of the Commission, the Technical Committee advocated the imposition of a non-recurrent general progressive tax on fortunes existing in the country on December 31st, 1919, and also a non-recurrent tax on increases of wealth proved to have taken place between August 1st, 1914, and December 31st, 1919, in so far as they were derived from excess profits arising from the war.

Both taxes were personal in character and were to be levied on individuals and on corporations in respect of such property as was not already assessed in individual names. Private persons were assessed individually.

The general tax on wealth was to be imposed in the shape of contributions to a compulsory loan, whose stock would bear interest at 1 per cent. and would be redeemed within seventy years from 1930. Power was given to the contributors to abandon the right to the stock, in which case their contribution was to be reduced by one-third.

Fortunes the taxable value of which did not amount to It. *lire* 20,000 were to be exempt, while others were to be taxed on a scale starting at 5 per cent. on It. *lire* 20,000 and increasing to a maximum of 40 per cent. on It. *lire* 100,000,000 and over in accordance with a formula calculated *ad hoc.* Rebates were granted to males over fifty years of age and females over forty, and also to married persons; also in respect of parents, grandparents and direct descendants living with and being dependent on persons taxed, provided that they were not themselves liable to tax, and that in the case of male descendants they were under twenty-five years of age and unfit to work; and, finally, on a more generous scale, to all persons disabled in the war, and to widows, parents and orphans of persons killed in the war.

The contribution was due to be paid on January 1st, 1920, but the contributor was permitted to demand its division into four, six, or eight annual payments according as his property comprised less than 25 per cent., or from 25 to 75 per cent., or more than 75 per cent. of real estate. These annual payments might be increased in number in very exceptional cases, but in none of the three categories might they exceed in number six, nine, and twelve respectively. Each annual payment might be paid in bi-monthly instalments. The deferred annual payments were to bear interest at 5 per cent.

The tax on increases of wealth was levied on increments exceeding L.20,000 due to over-profits arising (even though indirectly) from the war. The rates were to vary with the amount of the increment in accordance with the formula employed to determine the contribution-ratio in the case of the forced loan.

The tax was due in one payment only on January 1st, 1920, but the taxpayer was permitted to demand its division into three annual payments, each of which could be paid in six bi-monthly instalments and would be charged with interest at the rate of 5 per cent.

Most of the administrative provisions of the scheme were common to both imposts. In both cases the taxpayer was required before March 31st, 1920, to make a detailed declaration of his taxable assets and of deductions therefrom. Committees of Investigation appointed *ad hoc* were then to assess the various items by a special procedure and following definite rules. Ample powers for the purpose were conferred on the revenue officials.

Payments either in respect of the forced loan or the tax on increases of wealth could be made in coin, in scrip or National Loan Bonds, or in postal orders, cheques, notes of issue banks, or first-class foreign bills; and with a view to rendering payments still easier the scheme authorised the Government to establish special credit organisations. Specially favourable treatment was accorded to estates which had suffered war damages. The possibility of extending the provisions of the scheme to the new Provinces was under contemplation.

Space does not permit here the addition of a full account of the discussions of the Committee, and it must suffice to enumerate simply the conclusions arrived at on the principal questions considered.

Although it acknowledged the theoretical expediency of extending the levy to human capital, the Technical Committee had considered it advisable to abandon this purpose in consideration of the practical difficulties which the valuation of such capital and the gathering of the tax would have met, and because a tax on earned incomes—which had been proposed in substitution—could not be considered as an equivalent of the levy. The Committee proposed not to tax the property owned abroad by Italian citizens, unless such property belonged to the owner before August 1st, 1914, and to tax the property of foreigners in Italy, except if introduced after the publication of the law. The value of lands and buildings was to be calculated on the basis of the income; shares on the basis of their average quotation for the months of

May to August, 1919. The value of furniture and jewellery and the amount of money were to be calculated in a percentage of 5 per cent. and 1 per cent respectively of the other assets. Deposits were to be valued on their amount on July 1st, 1919, or on the higher amount reached on January 1st, 1920. The bearer securities were to be converted into nominal ones; otherwise, the total property of the taxpayer was subjected to the highest rate of 40 per cent. The declarations were to be made on oath and severe penalties were inflicted on those who made a false declaration or refused to swear or declared a value inferior to the real one for more than one-third. In the case of fraudulent practices, even punishments restrictive of personal liberty were inflicted. In order to prevent the evasion of property owned abroad, it was prescribed that consular authorities and public officials should refuse their concourse to any deed concerning estates existing abroad which had not been declared. And in prevision of the case that all these provisions should prove ineffectual, the Treasury was authorised to have recourse to a presumptive valuation of the estate of the taxpayer if his style of life should appear not in accordance with the ascertained amount of his estate.[1]

6. From the time that the Technical Committee had begun their labours on the Bill, many voices had been raised to point out the disadvantages, already apparent, deriving from the mere anticipation of its enforcement, or the disadvantages, real or apprehended, from the supposed provisions of the Bill not yet public property, but whose general outline was well known, owing first to indiscretions and then to official statements. To the Government's representatives, who with ever-increasing concern were always repeating to the Committee the warnings, complaints and protests of interested parties, the members of the Committee, the majority of whom had always shown themselves opposed to the imposition of a levy on capital in Italy, could only reply that these inevitable disadvantages had already, almost without exception, been perceived and pointed out by them, but that, though it was possible to diminish their effect, it was impossible to avoid them altogether, if the purpose of practising the levy on capital was earnest.

The recent noticeable increase in the amounts of foreign capital deposited in Italian banks had been checked, and it was even stated that a decline had already become manifest. Foreigners were evidently not pleased with the prospect of seeing their deposits harvested by the Italian Treasury. The Govern-

[1] For a full account of these subjects *cf.* the essay "La imposta straordinaria sul patrimonio," in *Studi sociologici sul dopo guerra.* Bologna, Zanichelli (*in the press*).

ment, impressed by this fact, was compelled to give assurances —which were subsequently embodied in Clause 6 of the Royal Decree—that foreign capital (including remittances from emigrants) which were found to have been deposited in banks or savings banks on January 1st, 1920, should not be subject to the tax on wealth.

The rate of exchange, which at the end of June showed a distinct improvement as compared with the end of May, declined rapidly after the announcement, on July 9th and 10th, by the Prime Minister and the Minister of the Treasury of their intention to impose a levy on capital, and this decline was not arrested until, about the middle of November, it became known that the levy on capital had been abandoned. The general impression is that these coincidences were not fortuitous. The stoppage of the influx and the beginning of the export of foreign capital, indicated by the cessation of the increase in foreign deposits and their observable diminution, may certainly have contributed to checking the rise and initiating the decline in the exchange. But the export and diminished import of Italian capital was a far more powerful contributory factor. The sending abroad of jewellery and other similar property in order to remove it from fiscal assessment may succeed in diminishing the yield of the tax, but cannot aid in depreciating the rate of exchange. But this result is certainly achieved by the export of Italian currency, prevented only to a limited extent by the prohibition (rarely enforced) against carrying more than a certain sum across the frontier, and by the export of bearer bonds, the interest on which the State will then have to pay abroad in gold. Some authorities contend that a noteworthy influence on the depreciation of the exchange was exercised also by the fact that exporters were induced to leave on deposit in foreign banks the money received as payment for exported goods [1] in the hope that they might more easily escape the investigations of the Treasury.

Complaints have been made in Italy at the Government's delay in giving effect to its advertised financial measures, a delay which permitted the hurried export of capital abroad, and at the publicity given to the proposals of the Technical Committee which was the main cause of that export. While admitting some foundation for these complaints, the fact ought to be taken into account that in no modern State could a transaction so vast and so radical as the levy on capital be carried through without the interested parties having ample warning beforehand. It

[1] This disadvantage was specially commented on by F. Flora in "Cambi e Scambi" in the *Economista di Firenze*, December 21, 1919 (No. 2381).

would seem inevitable that the carrying out of such a measure, so long as the principle of the levy is confined to one or few States, is bound to be preceded to a more or less serious extent by disadvantages analogous to those encountered in Italy. The results are aggravated by the fact that naturally the finances of the States which have recourse to it are not flourishing and their exchange is unfavourable.

7. One disadvantage which students who have considered a levy on capital did not take into account—perhaps the only disadvantage not already pointed out—is that which is based on a general and deeply-rooted impression that present prices are, so to speak, fictitious prices, and that it would be extremely unjust to make them the basis for a valuation of wealth for the purposes of a levy on capital.

Particular stress was laid on this idea by the Italian agriculturists in a resolution passed by the Bureau of National Agriculture and by the Society of Italian Agriculturists, which resolution found vigorous support in the newspapers and economic periodicals.[1]

On whatever it was founded, such an impression had in any case its practical importance, inasmuch as it was so widespread and so deeply felt that it would have been difficult to ignore it without aggravating the resistance of the taxpayer. To take count of it, on the other hand, meant that the revenue of the Treasury would be seriously diminished, and this fact ought to be taken into consideration in arriving at a decision as to the convenience or otherwise of a levy on capital. Advocates and opponents[2] of the levy on capital agree in considering that one of the strongest arguments, if not the strongest of all, in its favour is that by its means a part of the national debt would be redeemed at a favourable juncture, when money is depreciated, and therefore at a time when a public debt represents (compared with all other forms of wealth) a smaller percentage than it will represent when money has regained its former value. But this argument pre-supposes that other forms of wealth would be valued at current prices and the assumed advantage would dis-

[1] *Cf.* among others, Luigi Pignatelli, " Il contributo straordinario sui patrimoni e la proprietà immobiliare " in the *Sole* of July 31st, 1919; and J. Aguet, "Sul prestito forzoso," in the *Corriere Economico*, October 30th, 1919.

[2] For the first, *cf.* A. C. Pigou, " The Problem of the National Debt " in the *Contemporary Review*, December, 1919, page 624; for the second, L. Einaudi, "Il debito pubblico e la svalutazione della lira" in the *Corriere della Sera*, August 10th, 1919. *Cf.* also our study, "Sul problema finanziario del dopo guerra," mentioned above, pp. 25–27.

appear if the valuation had to be made on the basis of prices which will presumably obtain at some future date.

The idea that prices current at the moment are, in a sense, fictitious prices, appears on careful consideration to correspond in part, though not entirely, with facts.

It is no valid reason to say that the owner of property can sell his property when he wishes at current prices. That is true normally of industrial securities, which as a rule can be sold freely and easily, but it is far more seldom true with regard to real property, the sale of which may be hampered by legal restrictions or traditional family reasons—whose existence, frequence and force no legislator can ignore—and very often, at present, also economic considerations. This latter is the case with owner-cultivators of the soil who at the moment see in their land not only a source of income, but the only sure mean of applying their own labour. If their land is sold, who will guarantee them any occupation? It is this fear of lack of occupation which, in the opinion of those who know the land market, explains the fantastic height of the prices which are paid in some places by the peasants who have made money. This fear, then, would operate in two ways to the disadvantage of the owners of the soil in the application of the levy : on the one hand, by raising the average prices, and, on the other hand, by preventing the owner-cultivators from realising whenever they wished it the commercial value of their farms.

There is a limit to the force of the objection[1] that if it be true that the lands are over-valued, it is just as true that the tax would be paid in depreciated money. The limit of the force of the objection lies either in the fact that the tax would not be payable in money only, but would have to be paid in part in securities, or in the fact that it could not be paid—especially in the case of owners of real property—at once, but would have to be paid in instalments spread over a sufficiently lengthy period, during which the money would in all probability be gaining purchasing power. It is here that the unfavourable side of the instalment system becomes apparent, to which, moreover, attention had already been called.[2]

If it be held that the owners of the soil are already finding themselves disadvantageously situated as compared with owners of personal property in the contest with the Treasury by the fact that they are unable to make any attempt at concealment, it is easy to understand that the impression that the system of

[1] *Cf.* B. Griziotti, "Per il disegno delle imposte patrimoniale," in the *Giornale degli Economisti*, November, 1919.

[2] *Cf.* "Sul problema finanziario del dopo guerra," pp. 39 and 58.

valuation acts with peculiar injustice towards them is bound to embitter them. And if account be then taken of the fact that real property forms the backbone of wealth in South Italy, while in the North personal property assumes greater importance, and that in every district war wealth consists almost entirely of personal property, it is obvious that the discontent of the owners of real property would assume some political importance, and would justify an appeal to considerations of equity. It appeared, therefore, expedient to take their wishes into consideration by being satisfied in the meantime with a provisional valuation and postponing to a later date the ultimate valuation of real property on the basis of income valued at more stable prices.

8. Another fact weighed heavily in favour of a provisional valuation of the national wealth, subject to taking with due deliberation a final valuation, viz., the difficulties of the operation and the time it would require, circumstances irreconcilable with the urgency of the needs of the Treasury. According to the remarks made by the Minister of the Treasury in his financial statement to the Chamber of Deputies on December 16th, 1919, this seems to have been the decisive reason which compelled the Government to abandon the idea of a forced loan.

A provisional valuation of wealth could only, on the other hand, be based on the data already at the disposal of the Treasury. As regards land, it was based on the principal fiscal tax (*imposta erariale principale*) of 1916, which was multiplied by a fixed coefficient of 325 in order to obtain the value to be imposed by the extraordinary tax, in the case of buildings on the taxable rent (*reddito imponibile*) for 1919, which was multiplied by a fixed coefficient of 25. It is, however, a question of taxes which have for some time become rigid, and which now give rise, especially the land tax, to the greatest irregularities, which, if they do not offer any material disadvantages from the point of view of fair taxation, seeing that the great majority of the present owners have already redeemed the tax in the purchase price, deprive the tax paid or the taxable rents of all real value as a basis for the valuation of land or buildings.

The yield of the fiscal tax on land in 1916 and the taxable rent of buildings in 1919 are, of course, known to have been about It. *lire* 76 mill. and It. *lire* 750 mill. respectively. Multiplied by the prescribed coefficients, these figures would give a value to landed properties of 25 milliards of lire and to buildings of 19 milliards, but in reality at existing prices the respective values would in all probability not be less than 120 and 40 milliards. The

difference, which is marked in the case of buildings, is enormous in that of land.

It would, it is true, be possible to hope for an amendment when after six years a final valuation of lands and buildings is carried out on the basis of their income. The decree prescribes that when the valuation, even by reason of an alteration in the rent system, yields a result larger or smaller by at least a quarter than that obtained on the basis of the fiscal tax on land or the taxable rent from buildings, revision of the taxation will be possible by means of supplemental assessments or a reimbursement of the tax. In any event it will certainly be only a case of partial correction, both because it will only take place when the difference exceeds one-quarter, and because if the price of the buildings or the land diminishes in the six years owing to the revaluation of the lira, as is to be expected, part of the differences existing between the actual value and that obtained by means of the fixed coefficients will vanish.

9. The proposals of the Technical Committee aroused intense feeling among the holders of bearer securities. They contended that many people, rather than convert their bearer into nominal securities or pay 40 per cent. of their entire property, would try to sell their securities at any cost in the hope of concealing the sum obtained with the intention of exporting it to foreign countries by investing it in bearer securities, if they preferred that species of investment, or otherwise. There can be no doubt that, in addition to the motive alleged, the resistance referred to was largely caused by the fear of seeing a form of wealth taxed in its entirety which practically eluded the Treasury at the outset, and which, just for that very characteristic, has always been most popular. The fact that the announcement of the capital levy caused a fall in the price first of industrial securities and then—after the dispelling of the illusion that they were to be exempt—of public securities, is easier to explain as being due to the expectation that this abuse was about to cease than as a sign of alarm. Particularly with regard to Government securities accepted in payment of the tax it is to be noted that a large offer of bearer securities might have been regarded not as a danger but as an advantage, inasmuch as it would have removed one of the chief disadvantages of a capital levy arising from the difficulty for the taxpayers of finding the means of payment. It would, however, be an error to fail to recognise the fact that bearer securities, apart from the facilities for tax evasion, offer notable advantages, and, on the other hand, whatever may be the reason

for which preference is given to them, it is certain that to prohibit them in Italy would have caused much capital to migrate to other countries where that form of investment was retained.

Without giving here an account of all the solutions proposed and the arguments adduced, it will suffice to state that with the object of inducing the taxpayers to convert bearer into registered securities, the Royal Decree raised from 2 per cent. to 5 per cent. the annual deduction from the interest and dividends paid by the companies which had put bearer securities into circulation.[1] No special provision was made for public funds to bearer and the Treasury confined itself to the declaration that it would render compulsory the conversion of all bearer into registered securities if within a year a great part of them should prove not to have been declared.[2]

10. The main resistance of the taxpayers to the proposed levy on capital arose, however, from the anticipation of the realisations which would have been forced upon them to raise the amount of the tax, on account of the high rates and the limited number of years in which the payment would be due.

There is no better way, in my opinion, of gauging the extent of these difficulties than to reprint in full the words uttered by the Minister, Signor Schanzer, in his financial survey of December 16th, 1919 : "I gave due warning beforehand," he said, "that the tax on wealth ought to be distributed and collected during a suitable number of years in order not to dislocate the economic system of the country, and so that we may not incur the danger of crises in the values of real and personal property. It was proposed in the first instance to distribute the collection of the tax over a variable period of from four to eight years, according to whether the property was personal or real, but after an exhaustive study of the arguments the Government became convinced that, given the present extremely critical conditions of an economic system which is gradually recovering after a period of the most acute crisis, the instalment system referred to would be insufficient. Obliged to pay the duty within the periods stated, the taxpayers would be compelled either quickly to realise their securities and sell their houses and property at an incalculable loss to the national economic system, or else to borrow money in order to pay the tax, and that on onerous terms. A suitable Department would have to be established which would advance to taxpayers the necessary amounts. But such a mode

[1] *Cf. Gazzetta ufficiale del Regno d'Italia*, November 26th, 1919. Royal Decree No. 2166.

[2] For greater details on the subject, *cf.* the above-quoted essay in *Studi sociologici del dopo guerra.*

of procedure would in the first instance have produced a further considerable increase in the circulation of notes which, however, ought by every possible means to be limited and reduced. These considerations show that the collection of the tax over a period of from four to eight or ten years would not, on the one hand, have admitted of rapidly achieving the object of reducing the floating debt and the note circulation, and, on the other hand, it would have disorganised the economic life of the country, so that there was no alternative but to distribute the tax in question over a longer period of time, which was fixed at thirty years. Thus the taxpayer, who neither will nor can reduce his capital year by year, is given the opportunity of paying the tax from his own income."

The extraordinary tax on fortunes was thus deprived of one essential requisite of the levy on capital and, on the other hand, could not retain other requisites. Why, those who drafted the Royal Decree of November 24th must have asked themselves, retain for thirty years the same basis of valuation if, for the reasons adduced above, it was out of the question for that basis to apply to the present time. Only by arbitrary methods would it be possible to fix one future period rather than another as the basis for making the valuation. In that case, was it not better to carry out successive valuations, and in harmony with their successive results to vary the amount of the impost? Accordingly, it was arranged that when the first six years, starting from January 1st, 1920, had expired, the taxpayers would have to present a fresh declaration of property and the Treasury should have power to re-estimate at a high value, and that the same thing should take place later on at the end of the first and of the second period of eight years.

"Such a provision," the official *communiqué* of the new financial estimates points out, "appears to correspond better to the principles of fiscal and social equity, and is one which, instead of placing the results of the war only on the shoulders of the taxpayer of to-day, distributes the burden over property existing to-day and that of future generations."

Does not this proposal, however, lack the advantage which, as opposed to elastic systems of taxation, the levy on capital presents in so far as—apart from the fear of its recurrence—it offers a greater incentive to saving? With a view to encouraging saving to the greatest possible extent, and especially, during the first period, the investment of capital in agriculture, the decree ordains that the value of the extraordinary works shown by the taxpayer to have been carried out during the first six years in

the way of permanent improvements of his own land shall be exempt from the tax for the duration of the next eight years, when his property is re-valued, and that, after that period, variations which take place in the increased value of the property and which do not arise from inheritance or donations will be taken into account only as regards two-thirds of the increase for the remainder of the period during which the extraordinary tax is leviable.

Finally, the decree takes into consideration the case of those taxpayers who, rather than pay their instalments annually, prefer to compound for each of the four periods mentioned above, and ordains that another decree *ad hoc* shall be issued determining the method of such compounding.

11. By the transformation of the proposed levy on capital into a thirty years' tax on property which could be paid out of income many of the difficulties which confronted the Technical Committee either disappeared or were so diminished as to be negligible. There was no longer any necessity for any special Banking Institution to place taxpayers in a position to pay the tax. Since the actual amount of the property was not to be determined once and for all on January 1st, 1920, it was impossible to make the whole tax due as from that date and to burden the successive annual instalments with the interest during the entire thirty years. The plan might have been adopted of considering the amount of the tax due at the date of assessment as limited to the period for which it would have remained valid and to confine the interest within the limits of each period. It was, however, considered preferable not to charge interest even within these limits, thus adapting the extraordinary tax to the standards of exaction of an ordinary tax.

By the successive re-valuations the danger of a withdrawal of deposits or the hoarding of money was also reduced.[1] In fact, it was no longer worth the taxpayer's while to have resort to such expedients, inasmuch as, to ensure successful evasion, he would have to allow that part of his capital to lie idle, not once only and for a brief period, but for the whole period of the successive valuations. For that reason the Decree abandoned the provision relating to the assessment of deposits based on their amount on July 1st, 1919. The fact that the tax was spread over a period of thirty years was certainly calculated to arouse less opposition on the part of the taxpayers, while the assessment of the most difficult part of

[1] *Cf.* on the latter point L. Einaudi, "Il danno della tesaurizzazione dei biglietti," in the *Corriere della Sera*, November 1919; and G. Borgatta, "La possibilità di evasioni dai vari oneri fiscali," in the *Tempo*, December 21st, 1919.

the property to assess, viz., lands and buildings, was to be completed in a period of six years, leaving the Treasury all that time in which to perfect and strengthen its administration. Therefore it was rightly considered useless to create special organisations and special assessment and judicial procedure. It also became possible to diminish the severity of the penalties, which was all the more expedient as it is well known that too severe penalties are often not applied and thus fail to have any adequate effect, as they permit guilty persons to hope that they will escape their application. The obligation to make declarations on oath as to the source of income was cancelled, and it was left to the Treasury and its legal assistants to insist on an oath when they considered it necessary. Instead of the penalties restricting personal liberty imposed in serious cases, there was substituted the confiscation of a sum equal to the amount of the tax which it was intended to evade. It was, on the other hand, found possible to reduce from one-third to one-sixth the margins of tolerance conceded to errors in the valuation of property, owing to the fact that the valuation was no longer to be demanded in the case of real property with regard to which it would have presented great uncertainty.

While many difficulties vanished, fresh difficulties arose. It was found dangerous to impose the tax on the capital of Italian citizens which was created or exported abroad between August 1st, 1914, and July 1st, 1919, as that might have discouraged them from bringing it into Italy during the period—twenty-two years—of the successive valuations. The decree settled such questions by exempting that item from the tax. Consequently, it was found possible to cancel the instructions given to consular agents and public officials of the realm relating to deeds in respect of property possessed by Italian nationals abroad, and to abandon the presumptive valuation of the property which had been admitted chiefly on account of the difficulty of a direct valuation of property of that nature.

12. The fact that the tax was spread over thirty years rendered superfluous the attempt to disguise it as a forced loan, an attempt, for the rest, ill received: on the one hand, by the Socialist Party, who maintained that by it the Government was falling short of its promise to impose a levy on capital, and, on the other, by the financiers, who delighted in unmasking its manifest ingenuousness.[1]

[1] *Cf.* B. Griziotti, "Imposta straordinaria sul patrimonio e prestito forzoso," in the *Giornale degli Economisti e Rivista di Statistica*, September, 1919; F. Natoli, "Prestito forzoso e giustizia tributaria," in the *Ora*, September 1st, 1919.

On the other hand, the forced loan would have pre-supposed, as Signor Schanzer pointed out in his financial statement, an assessment of wealth which could not, it was recognised, be made very quickly. Yet it was urgently necessary to consolidate the floating debt and reduce, in as prudent a fashion as possible, the quantity of notes in circulation. But the proceeds of the first year of the extraordinary tax on wealth could not have provided for this, except to a slight extent. It was therefore necessary to have recourse to the issue of a new 5 per cent. voluntary loan, for the service of which the proceeds of the thirty years' tax would be employed.

The abandonment of the plan of the forced loan occasioned on the other hand a reduction of the rates owing to the circumstance that the contributor would no longer receive any stock in exchange for his contribution. Instead of varying from 5 per cent. to 40 per cent., the rates, according to the Royal Decree of November 24th, vary from 5 per cent. for estates of It. *lire* 20,000 to 25 per cent. for estates of It. *lire* 100 mill., according to a formula *ad hoc*. The Treasury, however, feared at the last moment that with these rates the yield of the tax would be too low, and was therefore induced to abolish—with evident injustice—all deductions based on the age of taxpayer, the number of persons composing his family, and invalidity arising out of the war.

13. The new complexion given to the extraordinary tax on wealth brought with it of necessity a change in the tax on increased fortunes.

Already the scheme of the Technical Committee had aroused objection on the part of the manufacturers, inasmuch as it varied the rate with the variation in the amount of the total estate, and they could not therefore pay the tax on increased fortunes before the assessment of fortunes had been completed. This meant a serious inconvenience for many joint stock companies which had been floated or developed in connection with the war and desired now to be wound up or to make up their balance sheets and to know therefrom quickly and accurately the amount of tax they owed.

This inconvenience would have been indubitably far greater under the new provisions which deferred the definite assessment of assets to the next period of six years. Hence arose the necessity of separating the tax on increased fortunes from the extraordinary tax on wealth and to make the former an independent organisation.[1] As it was necessary to apply the tax on increased

[1] The tax on increased fortunes was disciplined by the Royal Decree of November 24th, 1919, No. 2164. *Cf. Gazzetta ufficiale del Regno d'Italia*, November 26th, 1919.

fortunes first and independently of the assessment of individual fortunes, it became necessary to assess, not the individuals for the profits the war had brought them, but the firms for the profits they had realised. Companies were therefore assessed in their own name and not in that of the shareholders.

Also the system of taxation was necessarily modified in consequence, the rate being varied on the basis, not of the total amount of the estate at the present moment, but of the proportion between the increase in the estate and its amount before the war. An unnecessary modification which it would be difficult to justify was introduced on the other hand with regard to the object of the tax, exempting the increases of estates derived from earned incomes or from the income of undertakings not subjected to the excess profits tax. The tax on increased fortunes assumed, therefore, the character of a complement of the tax on excess profits existing during the war.

14. Apart from this limitation of the taxable increases of fortunes, and apart from some defects in the extraordinary tax on wealth, such as the lack of rebates and the insufficient severity of the assessment of bearer securities, it is certain that, regarded as a whole, the organisation of the extraordinary taxes imposed by the Royal Decree of November 24th is far preferable to that which the Technical Committee was obliged to prepare on the basis of the principles fixed by the Government. The advantage, as has been shown, is essentially due to the fact that the levy on capital had to be abandoned.

These hesitations and changes, however, brought with them some economic and political disadvantages.

From the economic point of view, the threatened levy on capital disturbed, as has been seen, the money market, instigated the migration of capital to foreign countries, and depreciated the exchange.

From the political point of view, its renunciation was greatly exploited by the Socialist Party in the recent elections, and was certainly not one of the most unimportant causes of its gaining a success greater than had been anticipated. There are promises in politics which may be made or not, but, once made, have to be kept, and perhaps the levy on capital was one of them.

The levity with which the Prime Minister and the Treasury Minister inserted the levy on capital in their programme truly lacked all excuse. In his financial statement Signor Schanzer attempted to justify it by saying: "Just as in the domain of science pure mechanics is one thing and applied mechanics

another, so in the domain of finance schemes which are to be realised must take into consideration the inevitable resistance and the practical obstacles of time and method to be surmounted." But how can such an excuse be admitted when scientists, statesmen and officials had almost unanimously foreseen such resistance and made note of such obstacles?

And we ought also to ask: Even if it be true that the extraordinary tax on wealth introduced by the Decree is much preferable to a levy on capital, is it really a measure preferable to any other? Would it not be better "to fix beforehand the proportion of the tax required for the annual service of the loan and to supplement it with a super-tax, *i.e.*, a progressive surtax on incomes subject to the global tax?" "The answer cannot be in doubt," says Flora,[1] "for the eight millions of owners would not any longer be obliged to value and give a return of their property; the tax collecting agencies, whose staffs are so depleted, would be released from the hard and costly task of supervision, and would be able to devote themselves to the work of the progressive tax on incomes; the legal assistants would no longer have to initiate thousands of financial actions at law to decide controversies with regard to the value of landed estates and taxed personal property."

It cannot be denied that these arguments are sound. And, against them, there is little value in the statement that wealth bears no proportion to income and that a general tax on wealth has the advantage of hitting harder property bearing little or no income than does an income tax. Such a statement is, indeed, true in general, but is of no value in the particular case of the extraordinary tax on wealth as it has been devised in Italy. For the purposes of the tax lands and buildings are valued by the capitalisation of their income: the prices of securities as quoted on the Bourse, on which their valuation is based, depend essentially on the income derived from them; money, furniture and jewellery are calculated in a percentage of the remaining estate. The value of the estate is then finally inferred from the capitalisation of the income, so that is much preferable, inasmuch as it is easier and more speedy to base the tax directly on income.

It is true that a super-tax on income generally would also hit earned incomes. But would this really be a disadvantage and not rather an advantage? When dealing with the levy on capital the Technical Committee acknowledged the theoretical expediency

[1] "Una imposta superflua," in the *Resto del Carlino*, December 1st, 1919.

and the practical impossibility of assessing human capital as well. The practical impossibility is due to the fact that the only possible way of charging human capital would have been by a tax on earned incomes, which, on the other hand, is not equivalent to a levy on human capital, just as a tax on income derived from wealth is not equivalent to a levy on wealth. But a levy on capital having been abandoned in favour of an extraordinary tax on wealth, which, in substance, resolves itself into a tax not only paid on income, but also proportionate to income, the question arises in another form: Why not force to contribute, in addition to incomes derived from real and personal capital, incomes from human capital also, *i.e.*, the earnings of labour?

The financial expediency of such an extension would not be doubtful, especially in Italy where, already before the war and to a greater extent still, perhaps, to-day, so large a part of the national income is derived from labour, nor do I see what objections, either theoretical or financial, could be made to the extension. By substituting for the extraordinary thirty years' tax on wealth a super-tax on incomes generally, we should only in substance be carrying out such an extension.

CORRADO GINI

Padua, Royal University, January 1920.

NOTE:—

The Royal Decree of April 22, 1920, n. 494 (*cf. Gazzetta ufficiale del Regno d'Italia*, May 1, 1920) modified some provisions of the Royal Decree of November 24th, 1919, alluded to in our article. It is not out of the question on the other hand that these provisions also should be modified in future. The limit of exemption was raised from It. *lire* 20,000 to It. *lire* 50,000. The scale of rates was modified and made heavier for the larger estates. From 4·5 per cent. for estates of It. *lire* 50,000, we pass to 50 per cent. for estates of It. *lire* 100 mill. The number of years in which the tax is to be paid was diminished from 30 to 20 years and reduced moreover to 10 years for estates made up of more than three-fifths of personal property. For the provisional valuation the definitive one will be substituted whatever the difference between the two. The successive re-valuations are abandoned, and right of redeeming the tax with a discount at 6 per cent. a year on the amount advanced is granted the taxpayer. The right of the Treasury to proceed to a presumptive valuation of the estate is re-established; and the capital of Italian citizens which was created or exported abroad between August 1st, 1914, and July 1st, 1919, were again subjected to the tax. The conversion of the bearer shares of companies engaged in credit transactions into registered shares becomes compulsory. For other companies which put into circulation bearer shares, the tax on interest and dividends is raised from 5 per cent. to 15 per cent. C. G.

THE RACE FOR THE CHINAMAN'S NIGHTCAP.

It has become a commonplace of historical interpretation that the great movements of humanity, the rise and fall of nations, war and peace, are based upon economic issues. The extent to which the economic issues are themselves determined, at any rate since mankind became reflective and self-conscious, by preceding ideals and aspirations has perhaps been under-estimated. Time has been, no doubt, and may be again, when the peoples have awaited the actual impulse of hunger to seek new resources by migration or conquest; but in our own civilisation the movement of causation may almost be said to have been reversed. The nations have not waited to be driven into action by hunger, but impelled by their own curious imaginings have restlessly struck out, now in this direction, now in that, pursuing diverse policies devised by their leaders, and attaining prosperity or disaster as it would seem almost by chance. It has been said that in the sphere of economics theory is only the outcome of the economic conditions of the moment; it is quite as true to say that the economic conditions of one day are mainly the outcome of the economic theory of the day before.

We may illustrate this view by taking some salient points in the history of economic theory and its influence on practice during the nineteenth century; and begin at the beginning with the appearance in 1800 of Fichte's remarkable treatise, *Der Geschlossene Handelsstaat*—"The Self-contained Economic State." In that treatise we find expounded so much of the policy subsequently pursued by the author's countrymen, and indeed by statesmen of many other countries, that it is difficult to believe that they were not consciously following it as a text-book. There are concentrated in it, as in a magic mirror shadowing forth the future, aspirations, ideals, and imaginings which, fitfully and even capriciously pursued throughout the nineteenth century, have shaped the destiny of the twentieth.

The ideal which Fichte sets before us is that of a State com-

pletely closed to all commercial intercourse with other nations, and, indeed, with trifling exceptions, to all intercourse. Each State is to be self-sufficing, and to develop its own peculiar powers and capacities in isolation. This is for him only the logical completion of the process by which the nations have separated themselves out from the great Roman Empire of Christian Europe. It is only in its economic relations that Christian Europe still remains one great State. "All arrangements which permit or assume the direct intercourse of a citizen with the citizen of another State, really regard both as citizens of one State, and are the survival and results of a Constitution long since done away with, remnants of a past world ill-adapted to our own. Systems which demand freedom of commerce, claims to buy or find a market in the whole known world, have descended to us from the way of thinking of our forefathers, to whom they were suited; we have accepted them without inquiry, and, having become accustomed to them, it is not easy to substitute others."

The necessity for completing the process by making the State as self-contained economically as it is in other respects, lies in the need of ensuring a just distribution of goods amongst its citizens. This can only be done by the State determining the whole economic structure, fixing the numbers who are to work in each branch of production and manufacture, ensuring to everyone his opportunity of work, and settling the rates at which goods and services shall be exchanged. But this is obviously impossible while foreign goods are free to enter the country and disturb the desired equilibrium. Hence the resort to Protection in its most extreme form—that of total exclusion. "The State is bound to secure for its citizens by law and force the conditions resulting from this equilibrium. But this it cannot do if any one can affect the equilibrium who is not subject to its law and control. Hence it must absolutely exclude the possibility of such an influence. . . . All traffic with the foreigner must be prohibited to its subjects and made impossible." That this involves an encroachment upon the freedom of the people is a matter of indifference to Fichte. Freedom in matters of commerce means freedom to drive hard bargains, to act unjustly, and to ruin the weaker party in the economic struggle. For him one man's gain is another man's loss, and not until the very end of his treatise does he recognise incidentally that there may be two profits on a bargain. He writes with contempt of the men who will not live by rule, but would attain their ends by cunning and fortune: "It is these who call incessantly for freedom, freedom of trade and industry, freedom

from supervision and policy, freedom from all order and morality."

How, then, is the change to be made? There are many degrees of Protection; imports may be discouraged to almost any extent and exports encouraged, and many States have in this way endeavoured to secure that there shall always be a flow of gold into their country. But all these expedients which only partially exclude foreign trade fail of their end, and bring with them new evils of smuggling and revolt and great expenditure on officials. The one decisive and effective step (was Fichte thinking of Sparta?) is to withdraw all gold and silver—all world-money—from the hands of the citizens, and replace it by a money which will be current only within the State (and did he foresee the war finance of this century?). Then, he maintains, trade will at once of necessity cease, since the citizen will have no money which the foreigner will accept in return for his goods.

Strictly speaking, every citizen should be satisfied with the products natural to the land in which he lives, but in so far as he will have been brought up in the enjoyment of foreign products, it will be only fair that the State should provide these so far as possible; that is to say, so far as they can be produced or manufactured within the State. Certain products cannot be grown in all soils, but it will not be difficult to find substitutes for these if sufficient trouble is taken—*e.g.*, cotton may be replaced by cultivated grass seeds. (Fichte would have been gratified by the ingenuity of his countrymen in later days in devising substitutes.) The process of acclimatising products and of introducing new arts will be expensive, but the Government will have at its disposal a vast treasure consisting of the confiscated gold and silver.

Another expedient to facilitate the change is introduced by the theory of "natural frontiers." "Certain portions of the earth's surface, together with their inhabitants, are obviously intended by Nature to form political wholes." That is to say, they are not only strong in a military sense, but are also productively independent and self-sufficing. As nations at present stand, they are imperfect in this respect, and feel constrained to "round themselves off"; they feel that they want a fruitful province here, or mines or salt-works there. Now the State which is about to close itself to foreign trade must first of all complete itself in this way by acquiring any territory it desires. It will be quite easy. Its acquired treasure will enable it to arm itself, and also to hire foreign help, to such an extent that it will be irresistible, and may attain its object almost without a blow; and once the operation has been carried out it can issue a manifesto promising never again to

exceed its own boundaries. From now onward it will need no standing army, further than is necessary to maintain order, since it has undertaken to abstain from any intervention in the political affairs of other States, and therefore has little need to fear an attack. But lest there should be such, all citizens are to be trained to arms. One State after another will follow this example, until all the nations of Europe are closed to one another; closed even to travel, since only scholars and artists will be allowed the privilege of visiting other countries for the purposes of study.

We may ask whether Fichte seriously thought this the highest ideal at which to aim, a world in which the nations hold each other at arm's length, like members of a family afraid to speak for fear of quarrelling. The answer would seem to be that for practical purposes he did, though he was not without a vision of something better: "The extensive system of world trade has been much praised for the advantages it yields in mutual knowledge between nations, and the many-sided culture arising therefrom. Well and good, if we were really peoples and nations, and if there were anywhere a strong national culture, which by the intercourse of peoples might pass into a culture which should contain all and be purely human, blending all together. But it seems to me that in attempting to be everything and to be at home everywhere, we end in being nothing true and whole, and find ourselves at home nowhere." In other words, nations are best prepared for membership of an international community by developing their individual capacities and needs in isolation and without reference to each other's needs and capacities. A strange doctrine, surely, to be maintained by a philosopher!

Reflecting upon the subsequent history and influence of the ideas embodied in this picture, we may note first that Fichte's sole object is the equal welfare of all members of the community. He does not seem to have contemplated the favouring of any one class, though naturally the workers would benefit most by the change; nor is there anything to suggest the aggrandisement of any one State, though no doubt he hoped that Prussia might be the first to enter upon the new way of life. His successors have seldom achieved the same impartiality. In recommending their policy of exclusiveness, whether total or partial, they have urged the certain aggrandisement of that nation only to which they belonged, and have also made their appeal to the interests of particular sections of the community. So Carey advocated his system of complete Protection in the interest of capitalism, maintaining that it was necessary to the establishment of capitalist industries and to the

creation of a class of hired workers for their use. So, on the other hand, Greeley supported his "Chinese Wall" policy by the argument that American labour must be protected by a tariff; and Chamberlain declared that he would not look at Protection unless he could promise that it would assure a large scheme for the provision of pensions, while his disciples have dwelt upon the greater security of employment to follow upon increased exclusiveness. So, again, Wagner defended his agrarian policy by the suggestion that if the price of bread should be increased thereby, the proceeds of the corn duties could be devoted to the welfare of the workers. The philanthropy of the later economists rings with a less certain sound than that of Fichte, not so much because of any conscious lack of sincerity as because they lack his singleness of purpose.

To our modern way of thinking there is less to be said for Fichte's theory of "natural frontiers," and the consequences he deduces from it, though here, again, we may recognise his sincerity and singleness of purpose. He really did believe that in such annexations as he demanded a State would be merely carrying out the designs of Nature, and therefore committing no wrong. We find the same policy urged by Friedrich List, the economist who perhaps more than any other has stimulated the German people to good and to evil. In the Introduction to his *National System* he writes: "The territory of some nations is not of great extent, nor supplied with many natural resources, the mouths of its rivers are not within its boundaries, and it does not form a homogeneous whole. Such a nation cannot apply the protective system at all, or only with imperfect success, until it has first supplied its deficiencies by conquest or treaty." And, again, in the body of the work: "As yet the apportionment of territory to the European nations does not correspond to the nature of things . . . it must not be ignored that rectification of territory must be reckoned among the most important requirements of the nations, that striving to attain it is legitimate, that indeed in many cases it is a justifiable reason for war." With more particularity, he urges that Germany should annex Holland, Belgium, and the Hanse towns; and elsewhere that Holland and Denmark belong by descent and character to the German nationality, which by their annexation would gain much-needed fisheries and naval power, maritime commerce, and colonies. It may be that the statesmen have required little encouragement from the economists, but we need only think of Nice and Savoy, of Schleswig and Alsace-Lorraine, to say nothing of abortive attempts upon Belgium and Holland, to feel that theories justifying the arbitrary annexa-

tion of "fruitful provinces, mines and salt-works" have not been without their influence. Later economists have talked more of customs-unions than of annexation, but perhaps not always without the tacit understanding that the one would ultimately lead to the other. Naumann's Central Europe, *e.g.*, certainly involved very much more than a customs-union. But when it comes to the question of overseas annexations, there is no reserve on the part of either economists or statesmen. The former are insistent in urging the necessity of securing the products necessary to supply home deficiencies, the latter show little or no reluctance in following their advice, and the theory of the "natural frontier" is supplemented by that of the "self-sufficing Empire."

But before the conception of the self-sufficing Empire prevailed, that of "national development in isolation" had found supporters among many economists, and exerted an influence of a widespread and pernicious character—pernicious not only from an international point of view, but also, if the present contention is right, to the nations themselves which framed their policy in accordance with that conception.

The most influential advocate of "development in isolation," both in Europe and in America, was undoubtedly Friedrich List; and it may be questioned whether the immense service which he rendered his country by promoting the Zollverein was not more than outweighed by the poison distilled by his followers from theories developed in his *National System*. Like Fichte, he did not himself regard economic isolation as the highest ideal; but like Fichte again, he did regard an exclusive development as the essential preliminary to freedom of intercourse. "Eternal peace and freedom of trade go hand in hand," he wrote to President Jackson in 1830; but before that time can come the nations must attain to as nearly as possible the same stage of economic development (*System, passim*). For him the stages of economic development are well defined, and his brilliant historical survey aims at showing how economic communities always do, and always must, pass through the same stages in the same order. Up to a point, no doubt, his contention holds good; but it is doubtful whether any useful lesson can be drawn from the comparatively simple economic conditions of the past for the immense complexity of the present. Venice and other Italian City States, for instance, passed through no stage even approximately like our Factory System, and yet it is almost entirely the Factory System which List has in mind when he urges the necessity, on the ground of past experience, of every nation

developing its manufacturing stage to the full before entering into free intercourse with other nations. The fact is that a new economic phenomenon had appeared in the world, and to appeal to the past for the elucidation of its significance was almost of necessity misleading. List and his disciples were dazzled by the rapid industrial and commercial development of England; they measured her prosperity entirely by the extent of her foreign trade, and were strangely blind to the dark side of the picture. They ignored the desperate sufferings of the working classes, and the growth of insanitary and overcrowded cities, which were to give rise to a century of "social problems"; and did not pause to ask whether a nation might not achieve a more fundamental prosperity by allowing its industry to develop quietly. England, they said, had achieved these brilliant results by means of Protection, and Protection must be the instrument by which the other nations should follow as quickly as possible in her footsteps.

It was in America that List first formulated his theory, largely impelled by the strong Protectionist interests already prevailing there; and it is in America that both theory and practice have been driven to the furthest extreme (though perhaps with a less consistent application than in France). Nowhere else has the doctrine of the "Chinese Wall" found such ardent and outspoken advocates, from the days of Carey down to the ingenious Simon Patten of our own time, who renews Fichte's contention that men should be content to live on the natural products of their own soil, and so avoid the dangers of intercourse with their fellow-men in other parts of the world. And nowhere else has the tariff policy of a country so frequently approximated to the total prohibition of imports.

From America List carried his doctrine to Germany, where he published the *National System* in 1841. It was a bold thought at that time, says Dr. W. Lotz, to declare that the future of Germany depended on *Grossindustrie*, and to adapt German commercial policy to its interests, for in those days Germany was mainly occupied in agriculture and small industries. But, if bold, it was no more than the logical outcome of List's theory. For him the manufacturing stage meant *Grossindustrie*, and since Germany had to pass through it, the sooner the better. Only so could she hope to challenge the commercial supremacy of England. "Germany must abolish her internal tariffs," he writes in his preface to the first edition, "and by the adoption of a common uniform commercial policy towards foreigners, strive to attain to the same degree of commercial and industrial development to

which other nations have attained by means of their commercial policy."

The "foreigner" in this connection is primarily England; and it was his feeling of animosity towards England which made List's teaching so dangerous for his country. It was a feeling curiously compounded of hostility and admiration, and there were times when it seemed possible that the latter would predominate. It never did so, and for the cause of his inveterate hostility we must probably look to the influences brought to bear upon him during his stay in America. He was always singularly open to impressions of his surroundings, and many of the Americans of his day were from the generation which had fought with England; they still regarded her as their commercial enemy, and their hostile tariffs were to them the weapons in another war of liberation. (Even in the next generation Protectionists were always able to arouse popular sympathy by declaring that their opponents were bribed with British gold.) It is likely also that Carey, son of an Irish exile, influenced him in the same direction.

It was this spirit which List carried back with him to Germany, and to which he constantly gives utterance in his great work. England's advances towards a commercial treaty he interprets as an attack upon German industry, and he delights in quoting infelicitous utterances by arrogant English statesmen on the necessity of maintaining the English hold in the German markets. He dwells upon the prestige and wealth of England and English commerce, and finds its source partly in her ruthless exploitation of weaker peoples, partly in that very policy of Protection which she was now urging the peoples of Europe to forgo. One of his arguments for the annexation of Holland, Belgium, and the Hanse Towns is that England would thereby be cut off from the European markets; and his hostility culminates in an appeal to the Continent as a whole to unite in combating the "insular supremacy." The seed fell upon fruitful ground, for even before its publication, Sir John Bowring had noted how the public papers diligently represent the British Government as plotting the ruin of German industry.

But even such hostility as this might have been comparatively innocuous in its effects if it had not been accompanied by jealous admiration. It was owing to the combination of feelings that Germany became obsessed by the idea of rivalling England on her own ground, instead of developing on really national lines. England, by means of Protection, had developed enormous textile industries, and her goods had created a new demand in Germany.

Let Germany exclude those goods by Protection, and she also would be able to develop enormous textile industries. She did so, and with the same results; rapid increase of population, crowding into the towns, gradual abandonment of agriculture, dependence upon foreign countries for raw materials and food, and the necessity of finding foreign markets for her surplus manufactures. This last was perhaps the most serious problem. Cobden, in one of his speeches, quotes a Manchester manufacturer, who calculated that if every Chinese man only bought a cotton nightcap a year from us, it would add 20 per cent. to the demand for our staple industry. Neither economists nor statesmen seem to have foreseen that by merely duplicating England's production, Germany would inevitably crowd into the same markets until one after the other was overstocked; and through the greater part of the nineteenth century the efforts of the two countries towards commercial expansion may be described as a race for the Chinaman's nightcap. That the expectation of profits sometimes proved to be illusory has only added to the fierceness of the competition.

By 1848 List's programme had been in the main carried out (Lotz), and a movement began to gather strength in Germany in favour of a Free Trade policy. This movement also was mainly inspired by England's example, and perhaps its most effective promoter was a naturalised Englishman, who was a member of the Cobden Club. The time had come in Germany, it was urged, as it had in England, when the great industries, more especially iron and textiles, could take care of themselves, and the interest of the consumer could be safely consulted. Unlike the English manufacturers, however, the great industrialists of Germany were for the most part opposed to the movement, and it was not until the early 'sixties, when the politicians—notably Bismarck—saw in it an opportunity for baffling the ambitions of Austria, that it had any great success. Even then there was no Free Trade in any true sense, but only the embodiment of lower tariffs in a series of treaties, which became a weapon in the hands of the Protectionists when the time for revision came, and the statesmen had no further need politically for Free Trade.

Looking back upon this time, Dr. Paul Voigt wrote in 1900: "In the middle of the nineteenth century German national economy stood firmly on its own feet; its agriculture still produced all really indispensable food, certainly 95 per cent. of the total food consumption; only a small fraction of food was drawn from abroad, mostly Colonial wares, which were mere luxuries, and in the worst case could be dispensed with. Moreover, home

agriculture and forestry (also mining) yielded by far the greater part of the raw material needed for industrial manufacture. The most important German industry, the textile, was absolutely dependent for its raw material only so far as concerned cotton and silk, hence only for the smaller half. Woollen and linen manufacture still depended almost entirely upon German sheep-breeding and flax cultivation. The other German industries . . . needed only to a very small extent raw material from abroad, or were still based entirely upon home produce. The German *Volkswirthschaft* afforded the beautiful picture of harmonious development, and of right proportion in all its parts; it was an edifice resting on a sure foundation."

No doubt, the Germany here described looks fairer to those who see it in the light of the later development of the industrial State with its overgrown towns, its depopulated countryside, and its ominous dependence upon foreign sources of vital necessaries, than it did to contemporary observers; but the Free Traders who resented the artificial fostering of the large industries may well have had some premonition of its consequences. And if the greater freedom for which they worked had achieved more permanent results, the harmonious development of economic Germany might have proceeded on lines which would have ensured for her a harmonious development in the world-markets as well as at home.

As it was, *Grossindustrie* and the idea of competing with England had seized upon the nation, and dominated its future policy throughout all subsequent alternations between greater and less exclusiveness. List became once more the economic oracle at the end of the 'seventies, and the Protection which he desired only for "infant industries" was demanded by industries full-grown and even overgrown. And as production increased beyond all apparent possibility of absorption by the home market, the Free Traders themselves came to recognise the overwhelming strength of *Grossindustrie*, and based their arguments upon the necessity of securing markets abroad and securing foreign food supplies. It was the same fear of exclusion from foreign markets and consequent failure of the food supplies, which moved the more cautious of the economists to press for stringent Protection of the agrarian interests, even at the risk of curtailing industry and foreign trade. Greater independence through keener competition is the one policy; greater independence through greater exclusiveness the other; and it is interesting to find Professor Wagner reverting in support of the latter to the old argument that it will be easy to acclimatise many of the products now derived from abroad.

For the main cause of this uneasiness about food supplies, we must look to the idea of the "self-sufficing Empire." Throughout the second half of the century this conception had been gathering strength with accelerating speed, and had become increasingly influential in determining the policy of nations. But nowhere had it such a hold upon the imagination as in Germany, where economists and statesmen pictured themselves as surrounded by self-sufficing world-empires, closing themselves, or threatening to close themselves, to the outside world, and so to exclude Germany from the sources of food and raw material. The *Geschlossener Handelsstaat*, which Fichte set before his countrymen as an ideal, has become just a century later not only an ideal, but a nightmare. In 1900 a group of Berlin professors delivered and published a series of lectures in which they envisage the world as cut up by the great Empires—Russia, Great Britain, France, America—into *enclaves* from which German trade is to be excluded. They solemnly prophesy total economic destruction for their nation unless by a great manifestation of force she can either break down this exclusiveness or acquire such new territory as may enable her also to become a self-sufficing economic unit. And it was this policy—the violence of a strong man struggling against a nightmare—which brought about the world catastrophe.

We need say nothing here of England's policy of exclusion, in the days when she trusted to Protection for the development of her economic resources, and achieved prosperity at the cost of European hostility. But France also has been dominated by the idea of development in isolation, and has pursued it with perhaps greater consistency than any other nation, if not with such extravagance as America. Her movement towards Free Trade in the 'sixties was forced upon a reluctant people for political reasons, and never found any real acceptance. And France also has been animated in the past by hostility towards England quite as active and more whole-hearted than that of Germany and America. More whole-hearted, because it has been unaccompanied by any desire to imitate. Rather, it would seem, the example of England has tended to act by way of "contrary suggestion." Writing in the *Revue des Deux Mondes* on the occasion of Bastiat's death, M. Reybaud says: "Of all the prejudices which reign among us, there is none more deeply rooted than distrust of England. It is enough that England leans to one side for us to incline to the other. Everything which England proposes is suspected by us, and we not unwillingly detect an ambush in all measures. In matters of trade this disposition is especially manifested. In vain we imagine

that England in her reforms has only her own interests in view—her true object is only to mislead and ruin us by her seduction! If we give way we shall be fools and dupes. Such is the language of national opinion; and although enlightened men resist it, that opinion does not the less prevail and exhibit itself on all occasions."

Thus it came about that, unbiassed by the desire to follow in England's footsteps, France has pursued her policy of self-development with as much exclusiveness as the limitation of her internal resources would permit; an exclusiveness which has become more easy for her, since her growing colonies have enabled her to supplement home production from within the limits of the Empire. (Under the tariff of 1892, duties on industrial products show an average increase of 69 per cent. over the tariff of 1881.) And it will hardly be denied that industrially, perhaps also in other ways, she has achieved greater individuality than Germany. Her strength, that is, does not lie in the large production of cheap goods with which England and Germany flood the markets; but in the production of more specialised and more choice commodities which have comparatively little to fear from competition.

It is interesting to note that economists are beginning to recognise that one hope of the future lies in the greater specialisation of production among the nations. So Lotz on the one side, and perhaps Wagner on the other, look forward to the time when the nations will protect only their specialities. But the specialisation which will lead to international harmony must not be based upon a policy of exclusion; it must be developed under conditions of the closest intercourse with the other nations of the world. Only the greatest freedom of constant readjustment and adaptation can enable a nation *both* to maintain its own characteristic development *and* to play its part in the living organism of a group of nations. Restraint anywhere must mean friction and failure of adaptation; it is as with a plant, which thrives best when left free to adjust itself to changes in its environment. And though the development of a nation in free intercourse with other nations will doubtless be *different* from what it would be in total or partial seclusion, it need not be less significant, less prosperous, or less independent.

It is by this way of differentiation, again, that the world must meet the bugbear of over-production which haunts one school of economists. "In isolation our wants exceed our powers," said Bastiat; "in society our powers exceed our wants." But this is to ignore the infinite expansibility of human wants, and to assume too rashly that, because humanity has shown a tendency to become

sated with the products of *Grossindustrie*, there is no further outlet for industrial skill and inventiveness.

It is sometimes objected that this theory of specialisation only means that some nations are to remain in economic subjection, as hewers of wood and drawers of water to the more wealthy—that Serbia, *e.g.*, should be condemned to do nothing but breed pigs for the rest of Europe. We reply, No, but it *does* mean that if a large number of her people find pig-breeding a congenial and healthy occupation, they shall be left free to follow it, while the remainder develop their national handicrafts quietly and characteristically, and are not forced by a combination of economists, capitalists and statesmen to submit to the Factory System in accordance with a preconceived notion of what progress consists in.

It is sometimes urged, again, that the best method of securing co-operation among nations is by means of commercial treaties (see, *e.g.*, Gide, *Principes*). But from our point of view, even these are to be deprecated. No doubt they may replace hostility by a temporary *modus vivendi*, and may tend to steady industry for a given term of years; but changes when they do come are likely to be more violent and destructive of capital and organisation than if they had come by a series of gradual adaptations, which would give employers and workers a chance of re-adjusting themselves. Moreover, even co-operation is not necessarily harmony, and experience has shown that the framing of treaties may lead to the bullying of weak States by strong ones (*e.g.*, Germany in the Balkans, and the European Powers in China), and to devastating tariff wars between States of more equal strength.

It is the imperative need for a real international harmony which forms the strongest argument for complete freedom of trade from artificial restrictions in the supposed interests of industry. The argument based upon economy of production always leaves it open to the Protectionist to reply that he is quite aware of the economy of foreign trade, but that there are more important considerations than economy to be taken into account—primarily the better development of home industries. France especially seems justified in taking this position, in view of the fact that, notwithstanding her inferiority in foreign trade she can show (or could before the war) a greater wealth per head of her population than Germany. But what she cannot show is that her policy has conduced to harmony among the nations.

HELEN BOSANQUET

THE GUILD SOCIALISTS

Of the various "ways out" of our unsatisfactory industrial system, Guild Socialism makes the strongest appeal to the generous spirit of the youth of to-day. It stands midway between State Socialism and Syndicalism, and claims to avoid the dangers of both extremes. In Guild Socialism, the State will own the means of production, and the rank and file of the workers will manage the processes. Thus, we shall guard against the bureaucratic rigidity which is inevitably associated with State management, and avoid the risk of exploitation by the producers, which is not unlikely to arise in a syndicalist society.

The Guild Socialists expound their philosophy in persuasive, and often picturesque language. They are naturally not in complete accord over minor matters, and differ even on questions of principle. They are seldom quite definite either about the details of their scheme, or the methods for bringing it into operation. They are naturally alive to the danger of setting up a definite position on questions necessarily controversial. And they are undoubtedly right in the view that when a fundamental change in the basis of society is contemplated, the method must be left to the necessities of the moment, and the details to be worked out by experience. All have the same ideal, though they concentrate on different aspects of the question. Thus, in criticising existing institutions, Mr. G. R. Stirling Taylor's bugbear is "Centralisation": Mr. Arthur J. Penty's "Overproduction." Mr. S. G. Hobson, Messrs. C. E. Bechhofer and Maurice B. Reckitt, and Mr. G. D. H. Cole dwell particularly on the evils of wage-slavery, and the advantages of freedom and self-government. None of the writers—with the exception of Mr. Hobson, who is very explicit—find it worth while to discuss capitalist arangements in any detail; all agree that the taking of wages for work done, and especially the taking of wages in any sort of proportion to work accomplished, is in the last degree humiliating to the worker. All are satisfied to assume that the wickedness of the system demands its immediate abolition.

Mr. Stirling Taylor is most trenchant in his denunciation of the repulsiveness of our modern industrial civilisation. The old Guild system gave us "the miraculous beauty of the stained glass of Chartres,"[1] that subtle complexity of human endeavour which we call Florence and Padua, while modern society "has vomited up Liverpool and Clapham."[1] We can, if we will, get back to the glories of the past by giving up our ideals of progress and production for profit, and re-organising society on the lines of the ancient Guilds. The key is organisation by function, as opposed to political organisation by district. Within the Guild, there must be complete democracy, and above all the Guild State must avoid centralisation, which inevitably means the triumph of the governors over the governed.

According to Mr. A. J. Penty,[2] the cardinal sin of our industrial system is overproduction. Society before the War had got into a *cul-de-sac*, from which there is no way out, but only a way back. The War was not a colossal accident, but the necessary outcome of general overproduction, and the consequent struggle for markets. There is, according to capitalistic aspirations, no limit to the possibilities of production, but there is a definite limit to the possibilities of consumption, a limit which we have already reached. In the middle ages people spent their surplus wealth on things of beauty. But when Protestantism relaxed the Usury Laws, instead of spending their surplus, people invested it, and so began the vicious circle of overproduction. Mr. Penty urges a return to mediævalism, but he does not indicate how, in the absence of plagues and other mediæval visitations, our industrial population can adjust itself to the limits which mediæval methods would impose.

There are four questions which Guild Socialists must deal with, if their system is to be accepted as a positive and practical scheme. (1) What will be the relation of the Guilds to the State? (2) What will be the relation of the Guild to the individual? (3) How will the product of industry be distributed? (4) And lastly; how will the Guild State be brought into being?

The writers whom we have already quoted, work out their answers to these questions with varying degrees of clarity and attention to details. According to Mr. Stirling Taylor, a great deal of work which in our unregenerate State is assigned to Government Departments, will be absorbed by the Guilds themselves, *e.g.* Education, Public Health, etc. Foreign Affairs, and

[1] *The Guild State*, by G. R. Stirling Taylor, p. 33.
[2] *Guilds and the Social Crisis*, Ch. I., by Arthur J. Penty.

the maintenance of an Army and Navy, will still be State functions (the latter, it is hoped, will only be a temporary need). The fixing of national minima of remuneration, and maxima of hours, and the standard rules for health conditions, will be State duties. So also, the passing and applying of criminal laws, laws of contract, etc. But the most vital function of the State will be its right to control industry by granting charters to the Guilds, each Guild probably paying a tax or rent in return for its charter.

The weak spot of Mr. Taylor's plan is that he gives us no real indication of what the State is to be. Since the Guilds are to derive their authority from the State, the source of this authority is an institution of fundamental importance. But although he pours ridicule upon our existing electoral methods, the writer is unable to suggest a substitute. His attacks on territorial representation are sound enough, but since his system requires a State to complement the Guilds, and since he cannot give us an alternative State, his arguments in the end rebound against his own position.

Mr. Penty also conceives the chief function of the State to be the chartering of the Guilds, thus enabling production to be organised on an equitable basis, and society to be protected from the depredations of the rogues who would otherwise prey upon their fellow-creatures. We may conclude from his writings that he would be satisfied with any form of State which could be fitted into his Guild organisation.

Mr. G. D. H. Cole[1] leads his readers into an impasse and leaves them there. According to his view, men are bound together in a variety of forms of association, among which, though none is absolutely sovereign, two stand out predominantly. These are Associations of producers and Associations of consumers.

The Trade Unions are Associations of producers which will merge into Guilds, and "the various Guilds will be united in a Central Guild Congress, which will be the supreme industrial body, standing to the people as producers in the same relation as Parliament will stand to the people as consumers."[2] Again: "Neither Parliament nor the Guild Congress can claim to be ultimately sovereign: the one is the supreme territorial association, the other the supreme professional association."[3]

We seem, therefore, to be left with a Dualism, but while the duties and prerogatives of the Guild Congress are clearly defined, the functions of Parliament are left in the shade. We are not to

[1] *Self-Government in Industry*, pp. 71–99.
[2] *Ibid.*, pp. 86–87.
[3] *Ibid.*, p. 87.

suppose, however, that Parliament will have the vital function assigned to it by the writers previously mentioned, of granting charters to the Guilds, for Mr. Cole expressly states that: "We cannot conceive of an association of producers deriving its right to exist from an association of users."

Mr. Cole is alive to the possibility of conflict between his two independent authorities, and admits that a single Guild may have a quarrel with Parliament. Who is to be the arbiter? Apparently, "some joint body representative equally of Parliament and the Guild Congress". For this sovereign body, however, Mr. Cole does not appear to have much enthusiasm, and it is left even vaguer than Mr. Taylor's territorial Parliament.

The relation of the Guilds to the individual is a less difficult question, and we find more agreement between various writers in matters of detail. All are agreed that the Trade Unions—when they have succeeded in purging themselves of the vices of Craft Unionism, and when they have absorbed the "salariat" and the technical workers within their ranks—will become the Guilds of the future. It seems generally accepted that no Guild will be guilty of any desire to exploit the Community in its own interest. This is a capitalist failing, which will end with Capitalism. Mr. Stirling Taylor, dealing with the suggestion that a Mining Guild might consult its own convenience at the expense of the Community, dismisses the objection very briefly: "The argument is based on the knowledge that the present capitalistic traders who control industry consider little else but their personal interests. So the objection has little weight."[1] He gives away the position, however, by maintaining that even if the miners should put their own interests before those of the Community, the self-interest of many miners is preferable to that of a few mine-owners

Mr. G. D. H. Cole is more cautious. He is not satisfied that the vulgar desire to grab will become extinct, but a Guild society can protect itself. Should any Guild fall so far from grace as to endeavour to make specially good terms for itself, its attempts can be frustrated either by a regulation of the price of its products, (imposed by some authority external to the Guild) or by some system of levy or taxation on Guild incomes, which will skim off any surplus that might otherwise take the form of profit.

Mr. Cole takes it for granted that each Guild will include all the workers in its particular industry: the Engineering Guild will include all the Engineering establishments in the country, the Building Guild all the builders, etc. Messrs. Bechhofer and Reckitt state very emphatically that each National Guild must

[1] *The Guild State*, p. 44.

have a complete monopoly. Mr. Stirling Taylor, on the other hand, welcomes the idea of competing Guilds, but maintains that competition between Guilds will be something very different from the deplorable scramble between individual capitalists.

The remuneration of the individual Guildsman will doubtless be a matter of considerable interest to him, though in the writings of the exponents of Guild Socialism it seems a subordinate question. Mr. Stirling Taylor supposes that the State will settle a minimum wage, and beyond this "one imagines that each Guild will be allowed to distribute its surplus as the members decide by a vote of the majority. It is very improbable that they will vote at first for equality of wages."[1] Mr. Stirling Taylor would apparently not skim off the surplus of each Guild's earnings, for he contends that the Guilds will be as anxious to secure efficient managers as the capitalists are to-day, and for the same reason—the increased prosperity of the business.

Messrs. Bechhofer and Reckitt reject absolutely any idea of remuneration in relation to output. The Guilds will hand over to the Guild Congress all monies received in payment of their products, and in return each Guild will receive from the Congress the remuneration required for its own members on a basis of numerical membership. The amount apportioned to each Guild then, is to be in exact proportion to its membership. The manner of distributing the remuneration within the Guild, however, shall be at the discretion of each Guild. It would seem, therefore, at the first blush, that absolute equality of remuneration for every kind of work—whether teaching, weaving or scavenging—was aimed at, but it is not quite clear why this exact numerical standard should be set up from without, if the Guild can afterwards proceed to upset it from within.

Mr. G. D. H. Cole gives us very little information in *Self-Government in Industry* regarding the remuneration of the individual Guildsman. On the principle that it is the work and not the remuneration that matters, he is chiefly concerned with the organisation of industry, and the necessity of securing complete freedom and self-government for the workers. "The Works will supply its products to the District Committee for purposes of distribution, and the District Committee will pay it according to the price lists fixed by the National Guild for what it produces, quality as well as quantity being, of course, taken into account in fixing the price."[2]

Here then, it would seem that the Guild will be paid by result,

[1] *The Guild State*, p. 65.
[2] *Self-Government in Indus rY*, p. 274.

but as already explained, the members will not be able to profit by any accidental superior productivity of their industry, since a judicious system of fixing prices or appropriating any possible surplus, will maintain a uniform level.

None of the writers discusses, except as a side issue, the question of the worker's stimulus to exertion, under Guild Socialism. Just as the individual Guildsman is assumed to be without the vulgar instinct to grab, so a universal predilection for steady work—irrespective of reward—seems to be taken for granted. Human vices, in fact, will disappear with capitalist institutions, and the only problem will be how to organise the surviving virtues to the best advantage.

From such minor and rather sordid details, all the writers turn with visible alacrity to the fundamental question how the Guild State is to be brought into being.

Mr. Stirling Taylor here, as on other points, gives away a great deal of the position. He cannot offer the workers any short cut to victory. The capitalists control industry to-day only because labour is not competent to do so. "What other reason can there be?"[1] the writer frankly asks. A few shillings per head from the working classes would quickly raise the capital necessary to make them their own masters. If they do not raise it, it is because they have not the necessary knowledge either of the productive or the commercial side of the business. He advises the workers, for the sake of education, to accept that instalment of reform called co-partnership and co-management. Above all he advocates peaceful transition—"only the illiterate still believe in the Revolution as a mode of social advance."[2]

Mr. Penty is equally opposed to violence, because, "if the present order were thrown over in its entirety, it would be impossible to improvise arrangements to meet the situation which would be created. We should be starved at the end of a fortnight."[3] If the working class of Russia has not been able to abolish two per cent. of the population without precipitating social chaos, what chance have the working class of this country, after abolishing thirty per cent.?[4] Industries should, therefore, be taken over in their entirety, and the workers must be magnanimous where they are victorious.

Messrs. Bechhofer and Reckitt also favour the gradual taking over of industry, but they warmly repudiate anything in the nature of a friendly co-partnership. On no account can Unions either

[1] *The Guild State*, p. 103.
[2] *Ibid.*, p. 96.
[3] *Guilds and the Social Crisis*, p. 81.
[4] *Ibid.*, p. 82.

stoop to conciliatory methods, or run the risk of allowing themselves to be conciliated. The method to be adopted is that of "Encroaching Control"; the Unions must get more and more power into their own hands. Foremen must cease to belong to a separate caste, and the gulf between the proletariat and the salariat must be bridged. Thus Labour, blackleg-proof, will make a monopoly of itself, in order to confront the monopoly of capital. When the latter has thus been stripped of all its functions, and has consequently lost its prestige, it will become a mere parasite, ready to be knocked off as a rotten apple from a bough. The writers favour nationalisation of industry as a useful step on the road to Guild Socialism, partly because unified management makes for unity among the workers, and partly because bureaucrats are so much more stupid than capitalists, that they will unconsciously play into the hands of the workers, and facilitate the final transition.

Messrs. Bechhofer and Reckitt devote some space to the question of expropriation. Like Mr. Penty, they advocate magnanimity. It is not to the interest of the mass of those who have won their way to emancipation, to be ungenerous to those whom they have dispossessed. The writers are prepared to endorse Mr. S. G. Hobson's suggestion of terminable annuities extending over two generations, as a very fair offer, and as much as any capitalist could expect. It must not be supposed, however, that in assessing compensation the balance sheet value of a concern will be adopted. For the balance sheet value implies that the business is a going concern, and when Labour has withdrawn itself, the concern is no longer a going one.

Mr. G. D. H. Cole dismisses the question of compensation with the curt remark that when the State "slips naturally into ownership" it "will deal as it thinks fit with the owners it supplants."[1] He describes the transition processes which will lead to the Guilds, with more restraint than Messrs. Bechhofer and Reckitt, but with a deeper, if less explosive, hatred for the existing industrial system. He too, is most unwilling that Labour should soil its fingers by any sort of contact with capitalist methods. He is afraid that Labour might sink to the level of the capitalist, and a temporary partnership might endanger its independence. Nevertheless, he thinks that a transition period of divided control is almost inevitable.

Mr. Cole points out that when Labour has wrested from the capitalist the whole control of production, the battle will not be finished. The questions of purchase, sale and investment will

[1] *Self Government in Industry*, p. 219.

still remain to be dealt with. Under the wage-system, capital, which absorbs all the profit of industry, consumes a portion, but saves and re-invests the remainder. If Labour succeeds in making industry unprofitable to the capitalist, no new capital will flow in. How will Labour secure the means of carrying on? Mr. Cole concludes that, "apart from capitalistic blunders, a catastrophe will be necessary to end the wage-system."[1] From this catastrophe, *i.e.* the General Strike and Revolution, he is both too logical and too much in earnest to shrink. The transition to a better state would involve a "mess,"[2] but even this mess would, he thinks, be preferable to the existing state of things.

The question of provision for the future is very lightly touched upon by the Guild Socialists. In our existing industrial system, the needs of the future are provided for by the spontaneous flow of capital and labour into those industries which meet the public need. We must suppose that in the new State the Guild Congress will consciously and laboriously work out the changes and developments which are now effected by automatic adjustments. When a Guild requires new capital, it will apply to the Guild Congress, and its claims will be carefully considered and weighed against all the claims made by other Guilds. The method is likely to be cumbrous and slow-moving, but there is worse than this. According to Mr. Cole :

"The particular Guild desiring new Capital or the placing of a heavy sum to reserve will, no doubt, have great weight in placing its recommendations before the community, but the ultimate decision cannot rest with the individual Guild. The State as the representative of the consumers must have a voice equal to that of all the producers gathered in the Guild Congress."[3]

In short, extension of any kind can only proceed when it has secured the sanction of the whole body of producers represented in the Guild Congress, plus the whole body of consumers represented by Parliament—a method of procedure beside which even Government control appeals are direct and speedy.

As these are questions, however, on which Guild Socialists differ, and which, moreover, they are willing to work out in the light of experience, it would not be fair to condemn their system on account of these shortcomings. The real weakness of Guild Socialism lies in the view which it adopts of human nature. The "Guildsman" is no more true to nature than the "economic man" of the classical economists. But the characteristic which the

[1] *Self-Government in Industry*, p. 190.
[2] See *Labour in the Commonwealth*.
[3] *Self-Government in Industry*, p. 192.

latter selected to typify man, was at least a general attribute of all live men. Their error lay in the importance which they attached to a single motive to the exclusion of all others. But the qualities and motives of the "Guildsmen" are the infirmities of noble minds rather than the characteristics of average men. Guild Socialist writers paint in vivid colours and strong relief; throughout, they contrast the capitalist villain with the virtuous proletarian. The employer is never anything but a thief who battens on the labour of others. The workman is always blameless, never self-regarding, with an enduring affection for work for its own sake, and a consuming passion for self-government. These gifts it is necessary to endow him with, since Guild Socialism does not otherwise afford any particular incentive to exertion, or to the attainment of excellence. It presupposes an enthusiasm for humanity which even the overthrow of capitalism is hardly likely to bring into existence.

To the Guildsman, the taking of wages for work done is an unutterable degradation. To accept the wages and not do the work, or, better still, to accept the wages and use the opportunities afforded by the workshop for propaganda directed to wresting the control, and finally the workshop itself, from the employer, would seem to him a natural and even a commendable course of conduct. Guild Socialist writers do not, however, claim that the average workman has reached this stage of evolution—on the contrary, they deplore the fact that the majority of workers are too degraded to feel the full dishonour involved in wage-slavery.

When they are criticising the evils of capitalism—their strictures of which are generally as sound as they are sincere—Guild Socialists are in their element. In their constructive work they are less happy. They claim that their society avoids alike the conflicts inseparable from Capitalism, and the peculiar risks involved in State Socialism and in Syndicalism. In fact, the Guild Socialist State would not be free of any of these risks. The individual Guild might still exploit the community, if not by making a profit out of its product, then by giving inadequate value for its remuneration. The individual worker, if he be possessed of initiative and originality, may be more effectively imprisoned within his Guild than in the existing system, and the hierarchy of Committees, Delegate Meeting and Guild Congress, may well be as difficult to set in motion as any bureaucracy. Moreover, until human nature is fundamentally altered, we are not likely to be completely rid of factions, conflicts and jealousies.

The Guild Socialist draws a picture full of promise, but his

material is carefully chosen. His Guildsman has all the right qualities. Syndicalism and State Socialism might do equally well under the same conditions, and with the best human material to work with, even Capitalism might give a good account of itself. The Guild Socialists must give us a workable theory with human nature as it is, not with men as they would wish to have them. We had almost said men and women, but the only writers who mention women, appear to find them a considerable embarrassment to their scheme.

H. REYNARD

EARLY PRICE ASSOCIATIONS IN THE BRITISH IRON INDUSTRY

A FAVOURITE source of illustrative material for treatises on the modern tendency towards industrial combination is found in the iron and steel industry, and many chapters are devoted to a description of the changes in its organisation during recent decades. No writer, however, appears to have investigated those early associations in restraint of competition which in this, as in other industries, were the forerunners of the more stable and more closely-knit forms of combination familiar to us to-day.

The roots of that modern growth run deep into the eighteenth century. About two hundred years ago the British iron industry had reached the lowest point in its history, and was, indeed, rapidly disappearing from the face of the country, along with the woodlands which were the source of its all-important raw material. According to a writer [1] in the early days of the nineteenth century, "an Iron Work in this country to produce 1,000 tons of Bar Iron annually from the ore requires 16,000 acres of wood-land to support it, until the succession of woods, in their regular course of cutting at sixteen years' growth, comes round." This estimate is, no doubt, somewhat exaggerated; and from other calculations it would appear that less than one-third of this acreage should have sufficed, if the whole of the wood cut were used as charcoal for making iron. In practice both legislation, in earlier times, and other demands on the timber supplies, had tended to restrict the ironmaster to the coppice wood and loppings from the larger trees; and in some districts the scarcity of charcoal was so acute that anyone who brought even a single sack to the furnace was regarded almost as a benefactor. Many forges in Sussex became nomadic, and furnaces were carried to districts even so remote from the ore as the Highlands of Scotland, in order to overcome the fuel difficulty.

In the circumstances of the time competition between ironmasters for supplies of charcoal was often acute, and

[1] The anonymous author of *Observations on the Proposed Tax on Pig Iron*, London, 1806.

thus, wherever any degree of localisation of the industry had been reached, there existed a strong inducement for ironmasters to enter into agreements as to the price to be paid for charcoal and as to allocation of supplies.[1] In particular, this was true of the Furness area. In 1712 the only two firms in the district—the Cunsey and Backbarrow companies—came to an understanding as to the price to be paid to woodowners and the quota of the local supplies of charcoal to be taken by each: if either received quantities in excess it undertook to compensate the other at the rate of half-a-crown per dozen sacks; and when woods were purchased outright the companies agreed not to bid one against the other. Such a combination of buyers was obviously hostile to the interests of the woodowners; and in 1748 several of the larger proprietors set up a furnace of their own, in order to afford an outlet on better terms for the charcoal supplies they produced. Almost all the lesser woodowners also undertook to boycott the "combinators" and to deliver only to the new furnace, at a price regulated, under a sliding-scale, by the price of pig-iron in the Bristol market.[2] This agreement lasted for thirty years, and in 1781 the three chief iron firms in Furness again entered into a concordat which continued until the year 1818, when all the surviving ironworks came into the hands of a single firm and a local monopoly was established. Agreement as to charcoal naturally led to concerted action in other matters; and soon after the middle of the eighteenth century regular meetings of local ironmasters were held at the Sun Inn, Penny Bridge, to deal with trade affairs, prices, and conditions of employment. In 1757, for instance, it was agreed "that no bar iron at home be sold under £19, at Liverpool £17 per ton."[3]

But so long as charcoal remained the only fuel used in the making of iron, works were necessarily widely dispersed, combination was difficult, and regulation of price on anything approaching a national scale impossible.

Conditions were quite different in the infant industry, born of the genius of Abraham Darby, which was rapidly growing to a lusty youth in the coal-producing districts of England and Wales. During the second half of the eighteenth century iron manufacture was increasingly attracted to three main areas where coal supplies were plentiful: the Midlands, and, in particular, Shropshire and Staffordshire; South Wales; and Yorkshire and Derby-

[1] Examples of this tendency are to be found in the Mansfeld copper industry and the iron-smelting of Siegerland. Levy, *Monopoly and Competition*, pp. 79-81.
[2] Fell. *Early Iron Industry of Furness*, pp. 142—145.
[3] *Ibid*,. pp. 254, 279, 288.

shire. Even as early as 1740 these three districts produced together 59 per cent. of the national output of 17,350 tons of pig-iron; by 1788 the proportion had risen to 79, by 1796 to 81, and by 1820 to 95 per cent.[1]

In the early days of the new industry production was largely localised in the neighbourhood of Coalbrookdale and Broseley, and the firms concerned were kept busy by the continually increasing demands for materials required for the construction of engines of the Newcomen type. In 1762 Abraham Darby of Coalbrookdale, John Wilkinson of the New Willey Company, and Isaac Wilkinson of Bersham, entered into an agreement as to the price to be charged for cylinders, pipes, and other articles in all markets outside London [2]; and it was probably out of such agreements that there arose later an organisation of ironmasters and manufacturers of the counties of Shropshire, Worcester, Stafford, and Warwick. In 1785, at one of the quarterly meetings of this Association held at Stourbridge, resolutions were passed condemning all taxation imposed on industry and trade [3]; and, although evidence at this time is scanty, it appears probable that the meetings already exercised the control over prices which certainly existed a few years later.

In South Wales the early development of the industry was almost entirely the work of immigrant enterprise, capital, and labour, drawn from England, and, in particular, from Shropshire and Staffordshire; and the English colony soon adopted an organisation similar to that which already existed in the Midlands. In 1802, at a meeting of ironmasters held at Abergavenny, at which Tait, of Dowlais, and Homfray, of Penydarren, were present, it was resolved to institute a Welsh Quarterly Meeting, and a constitution was adopted: members agreed to pay an annual subscription of a guinea, and each new member had also to provide a bowl of punch for the gathering.[4] The later meetings of the Association were held at Newport, and prices were fixed for foundry and forge pigs and for bar iron each quarter from 1803 onwards.[5] In 1810 the prices were left "open for every one to sell as he likes," but regulation was resumed in 1811, and continued till 1824, when the meetings at Newport came to an end: it is possible that the Welsh association was absorbed

[1] See tables in Scrivenor's *History of the Iron Trade* and Mushet's *Papers on Iron and Steel*.

[2] Victoria County History: Shropshire. P. 464.

[3] Langford, *A Century of Birmingham Life*, Vol. I., p. 321.

[4] Wilkins, *History of the Iron, Steel, and Tinplate Trades*, p. 66.

[5] For South Wales Prices, from Newport Quarter-Day Book, see Scrivenor, Appendix, p. 410.

by the larger gathering of British ironmasters held that year. The local association, however, appears to have been revived in the 'thirties, and in 1836 resolutions were passed at Newport that the make of pig-iron be reduced 20 per cent., that twenty-two furnaces be blown out, and that the price of pig-iron be continued at £10 per ton. "The Staffordshire, Shropshire, North Wales, and Scotch ironmasters were requested to join in this arrangement, to which they acceded." Again, in 1840, an agreed reduction in output of 20 per cent. took place.[1]

Perhaps no form of organisation is so reticent and elusive as a trade association; it neither seeks nor obtains publicity in the Press or in official records, unless its conduct is such as to call forth protests from the consumer; and its history has generally to be pieced together from casual references made by writers interested primarily in other matters. But, as regards the third main area of iron production—that of Yorkshire and Derbyshire—our information is more definite, and it is possible to trace the origin and progress of the combination movement in greater detail from an original source. There is, in the Sheffield Public Reference Library,[2] a volume containing, in manuscript, the minutes of meetings of the principal ironmasters of Yorkshire and Derbyshire held between 1799 and 1828; and most of the material for the remainder of this article has been drawn from this document.

At a meeting held in Sheffield on August 11th, 1799, it was resolved to form a friendly association of ironmasters, at the meetings of which dissertations on the processes of the industry should be read in rotation by the members. Meetings were to be held in March, June, September, and December, on the first Wednesday prior to the full moon, at convenient inns in Sheffield, Leeds, Bradford, Barnsley, Wakefield, or Rotherham. An annual subscription of a guinea was charged, and members also agreed to pay half-a-crown for dinner at each meeting, whether they attended or not. Ten members were enrolled at the first meeting, and by September, 1801, the membership had increased to twenty-nine. At the first meeting Mr. Joseph Dawson was elected president. This extraordinary man, formerly a Nonconformist minister, had engaged successively in farming, coal-mining, and iron-smelting, and had recently entered into a partnership in the Low Moor Ironworks with a Liverpool merchant and a solicitor of Bradford. A friend of Priestley, the chemist,

[1] Scrivenor, p. 314, footnote.
[2] Jackson Collection, 1297.

his tastes were scientific and metallurgical, and it was largely due to him that the early meetings were occupied mainly with technical and semi-scientific questions affecting the industry.[1] But, whatever the original objects, the association quickly transformed itself into an organ for the regulation of prices; and on December 3rd, 1800, it was resolved "that an alteration be made in the rate of Castings according to prices now agreed on, to take place on the 1st Day of January 1801."

At subsequent meetings the prices at which various grades of pig-iron should be sold were determined. Between 1808 and 1824, for instance, the price of No. 1 pig was altered seventeen times and varied between £7 and £10 a ton. Similarly, prices were fixed for bar-iron on several occasions. As might be expected, castings offered most difficulty; but in 1809, at Wakefield, a meeting of founders, sitting apparently as a sub-committee of the association, drew up a list of prices, fixed the terms of credit allowed to customers, and agreed that six shillings per cwt. should be the maximum price for the purchase by foundries of old cast-iron. At the next meeting a Chesterfield firm was accused of publishing and circulating among its customers part of the proceedings at Wakefield, and this firm was subsequently expelled from the association.

As early as 1808 the meeting urged "a good understanding" with the ironmasters of Wales, Salop, and Staffordshire; and from 1810 representatives from Yorkshire and Derbyshire attended the meetings at Gloucester, a levy of two guineas being imposed on each furnace in blast and on each forge to defray expenses. In 1813 a resolution was passed welcoming an increase in the price of pig and bar iron by the Gloucester meeting, and asserting that the members "will at all times coincide with their Brethren in the districts of Wales, Shropshire and Staffordshire in any regulation for the benefit of the Iron Trade at large through the Kingdom." Frequent reference is made to these meetings, and on one occasion a donation of twenty guineas is sent to the *Society* of Iron Masters for Wales and the Counties of Salop, Stafford, York and the North."

But national uniformity was not easy to maintain, and in the trade depression that followed the Peace, not only was contact with other districts lost, but the dissolution of the local association was even debated early in 1822. At a later meeting it was resolved that "in case it should be clearly ascertained that any

[1] For Joseph Dawson see Meade: *Coal and Iron Industries of the United Kingdom*, p. 354, and Mantoux: *La Révolution Industrielle*.

charge is made in this district less than agreed prices, any firm may sell to same house *only* at such reduced price, notice being given of such deviation to the secretary." But the trade boom which culminated in 1826 was already incubating; and in 1824 the association was suddenly galvanised into new life. With the cessation of the demand for munitions in 1815, some of the more prominent firms in the district—such, for example, as Messrs. Newton, Chambers, and Co., of the Thorncliffe Iron Works—had specialised in the production of gas apparatus, gas pipes, and lamp-posts. Gas lighting had been known in parts of London since 1807, but it was during the later months of 1823 and during 1824 and 1825 that the flotation of new companies was especially marked, and the House of Commons was besieged with petitions for Gas Light Bills from all parts of the country.[1] News of the speculative outburst had reached the North early in 1824, and on January 21st it was resolved that a special meeting be called at Sheffield on February 1st, and "that in the meantime the parties here present pledge themselves not to sell pipes in London or elsewhere for less than 9£ per ton, Money." The February meeting drew up a list of prices for pipes and lamp-posts, and Messrs. Jessop, Leah, Field, and Hartop were appointed to meet the ironmasters of the Midlands at Birmingham with a view to effecting an advance in prices in the London market. A year later it was resolved "that 1£ per ton be added to the list of prices for London Contract Castings," and six members were appointed to attend a general meeting of British ironmasters in London.

During the frenzy of 1825 and 1826 the supply of iron for purposes of all kinds was far below the demand at customary prices—a fact insisted upon by the Chancellor in 1825 when proposing a drastic reduction in the import duties on iron[2]—and the price of No. 1 grade of pig, for example, was raised from £7 early in 1824, to £12 10s. in April, 1825. But the subsequent fall was only less rapid, and by the summer of 1827 the price again stood at £7. Even at this figure frequent complaints of underselling are made against members of the local association, and one of these was expelled. The record ends dolefully in 1828 with the assertion that "the only effective remedy for the present ruinous low price of iron is in a diminished make."

No such concerted curtailment of output as that practised in South Wales appears to have been adopted by the northern group

[1] Journal of the House of Commons 1823, 1824, 1825.
[2] Hansard, March 25th, 1825.

of ironmasters; but in 1811 it had been agreed that all members of the association should inform the secretary of the extent of their unexecuted orders so that prices might be adjusted accordingly; and in the same year the practice of price discrimination was introduced. Pig-iron for coastwise transit to Newcastle and elsewhere was delivered at Hull at a price sometimes as much as £1 below that charged to local foundries, and London merchants were similarly favoured.[1] In the case of No. 3 pig, which could be used indifferently for forge or foundry purposes, discrimination was made in favour of the forge masters.

Throughout the period regulations as to the terms of credit were frequently made, and the granting of more favoured terms was then, as now, an easy method by which the banished demon of competition could re-enter the house. At this time a credit of nine or twelve months, or more, was quite common, and a vigorous attempt was made to reduce this too liberal allowance. In 1809 it was agreed "that on the sale of each parcel of Pig Iron an acceptance shall be taken for the amount at eight months from the date of invoice, or an allowance of 5 per cent. for ready money"; and the credit for cast-iron goods was fixed at six months, or 5 per cent. for payment within one month. No allowance whatsoever was to be made to "engineers, millwrights and others." For forge pig the maximum credit was fixed at nine months. In 1815 the terms for pig-iron were altered to "six months, or discount of 5 per cent. for bill on London at 2 months within one month of date of Invoice"; and resolutions reaffirming this were passed from time to time.

During the period here considered the tendency towards the formation of regulative associations was almost inevitable. For the iron industry was strongly localised, and fixed capital was already so important a factor that, under competitive conditions, sales at less than total cost of production must have been frequent. "The general charges are so heavy that low prices are only to be met by increasing the productiveness of the work. Thus the evil operates to its own extension," wrote the author of a pamphlet in 1831. But there were other conditions which rendered combination relatively easy at this period. The fact that smelting and manufacture of iron with coke had not yet been adopted abroad gave the British producer a great advantage over foreigners in the home market and serious competition was felt only from

[1] In 1813 Messrs. Darwin & Co. are accused of having sold 50 tons of No. 1 soft pig for £7 10s. to Sheffield manufacturers under the pretence of these being London merchants.

the high-grade charcoal bar iron of Russia and Sweden. Even here the protective tariff tempered the wind to the British ironmaster. In 1782 the duty on foreign imports of iron was £2 16s. 2d. a ton, and by 1819 this had been raised by successive stages to £6 10s.—a tax which, according to Huskisson, amounted almost to a monopoly in favour of the British producer. The Act of 1785 which prohibited the exportation of machinery and artisans also told in the same direction, and the enforcement of the Act was undertaken by the ironmasters themselves.[1] In the minutes of the meeting held on April 16th, 1823, reference is made to the prosecution by Messrs. Walker, of Rotherham, of a Mr. Manby "for his having so illegally taken Artisans from England to France so much to the detriment of the Iron Trade of this country"; and Messrs. Walker are thanked for their public-spirited action. Two years later the Act under which this prosecution took place was repealed,[2] and the following year the tariff which protected the British ironmaster was drastically reduced.

No account is here attempted of the later history of regulative associations in the iron trade; nor has any reference been made to the organisation of other industries at this time. But the iron industry was by no means unique. A local, "horizontal" combination possessing similar characteristics existed, for example, among the silver-plate manufacturers of Sheffield: from 1773 to 1784 monthly meetings were held at various taverns, and members were fined for failure to attend; price-lists were agreed upon and terms of discount standardised.[3] Control was similarly exercised in the pottery trade about the same period. Babbage gives an account of a combination of booksellers in London which included some 2,400 members.[4] In a work familiar to all students of economic history Professor Levy has described in detail the cartels in the northern coal trade and the copper industry.[5] Some of these instances were, no doubt, of a temporary and unstable character; but, considered together, they are evidence of a widespread attempt on the part of producers to substitute regulation for that free competition which some writers—particularly those

[1] In 1790, with the support of Matthew Boulton "a society of respectable manufacturers in the steel trade" was formed in Birmingham, the object of which was to prevent the serving of foreign merchants with semi-manufactured goods.—Langford, Vol. I, p. 358.

[2] By 5 Geo. IV. c. 97.

[3] Leader: *Sheffield in the Eighteenth Century*, p. 88.

[4] *Economy of Machinery and Manufactures.* Ch. XXXI. Referred to by Levy.

[5] *Monopoly and Competition.* Ch. VI.

whose eyes have been fixed exclusively on the textile trades—assume to have been all-pervasive during the "industrial revolution" in England. Professor Levy speaks of his instances as "first variations from the competitive type." Possibly, after further inquiries, we may come to question whether the type was, in fact competitive; or whether, after all, it was something not very different from that protean hybrid which modern analysis has revealed to us in the present industrial system.

T. S. Ashton

THE THEORETICAL EFFECTS OF RATIONING ON PRICES.

In certain not unusual circumstances it is possible to foretell without difficulty whether the price of a commodity, which is being sold without restriction of the amounts bought by individual purchasers, would fall or rise if no person was allowed to buy more than a defined quantity. It is interesting to examine the various cases mathematically, both to confirm *à priori* reasoning and to find out critical cases where a policy of rationing may produce unexpected results.

The analysis that follows is based on simplified hypotheses, but it is believed that the broad results would be little affected if the basis was made more general.

Suppose that the population consists of two equal groups, each containing n people. Let the demand function be identical for every person in the first group, and that for the whole group be $f_1(x)$, so that at price $f_1(x)$ every person buys $\frac{x}{n}$; and similarly let the demand function for the second group be $f_2(x)$. Call the first and second groups the rich and poor respectively. In the range under consideration let $f_1(x) > f_2(x)$, and let the demand of the rich be less elastic than that of the poor.

Before rationing let the joint demand function be $F(x)$, and let $2q$ units be sold at price p, of which $(q+q_1)$ units are sold to the rich, and $(q-q_1)$ to the poor.

Then $p = f_1(q+q_1) = f_2(q-q_1) = F(2q)$.

Write $f_1(q) = p_1$ and $f_2(q) = p_2$.

In the region under consideration, suppose that straight lines are good approximations to the demand curves. Then they may be written :—

Rich demand, $y - p_1 + m_1(x-q) = 0$, DN_1 in figure.

Poor demand, $y - p_2 + m_2(x-q) = 0$, EN_2 in figure.

Free joint demand, $y - p + m_3(x-2q) = 0$, TB in figure.

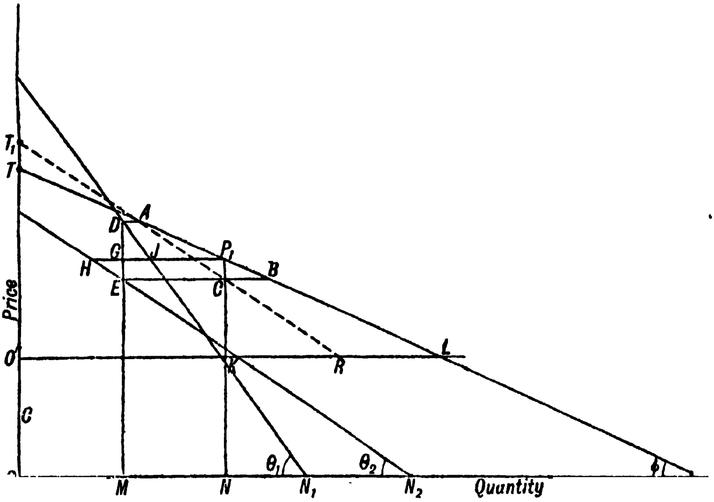
Here

$m_1 = -f'_1(p_1) = \tan\theta_1,\quad m_2 = -f'_2(p_2) = \tan\theta_2,\quad m_3 = -F'(p) = \tan\phi,$

and from the construction of a joint demand curve,

$$\text{Cot}\ \phi = \cot\theta_1 + \cot\theta_2.$$

In the figure, $ON = 2q$, and $NP_1 = p$, the price at which $2q$ units are sold. $OM = q$, $ME = p_2$, $MD = p_1$. The horizontal line through P_1 meets the rich and poor demand curves at J and H, and MD



Ration OM. Separate demands DN_1 and HN_2.
Free joint demand ABL.
Rationed joint demand ACN.

at G; so that $q_1 = HG = GJ$. Substituting the co-ordinates of J and H in the demand equations, we have—

$$p - p_1 + m_1q_1 = 0,\ p - p_2 - m_2q_1 = 0.$$
$$\therefore\ p = (p_1m_2 + p_2m_1)/(m_1 + m_2),$$
$$\text{and } q_1 = (p_1 - p_2)/(m_1 + m_2).$$

The elasticities of the demands are $\frac{p_1}{qm_1}, \frac{p_2}{qm_2}, \frac{p}{2qm_3}$, which may be written e_1, e_2, E, where $E = \frac{1}{2}(e_1 + e_2)$.

The free joint demand equation may be written

$$(m_1 + m_2)y - (p_1m_2 + p_2m_1) + m_1m_2(x - 2q) = 0.$$

Now let the consumption per individual be limited to q/n per head; that is to q for each group.

In the rich demand curve the vertical DM replaces DN_1, and for the poor EM replaces EN_1. The joint demand breaks off from its former course at A, where DA is horizontal, runs in direction θ_2 till it meets NP_1 at C, where EC is horizontal, and then drops to N.

The equation of AC is $y-p_2+m_2(x-2q)=0$.

We may distinguish seven cases for the nature and control of the supply :—

1. Complete control of supply by the Government.

Suppose that the Government had been issuing $2q$ units of sugar monthly, purchases being unrestricted. Then the price would be $NP_1=p$.

(*a*) Now let purchases be restricted to q/n for an individual. In order that the whole $2q$ should be used, the price must be fixed at p_2 from the poor demand curve.

The fall in price is

$$p-p_2=(p_1-p_2)m_2/(m_1+m_2)=(p_1-p_2)/\left(1+\frac{p_1}{p_2},\frac{e_2}{e_1}\right).$$

The rich obtain q_1 units less, the poor q_1 units more.

The loss to the Government is $2(p-p_2)q$; the increase in consumers' rent to the rich is $(p-p_2)q-\frac{1}{2}(p_1-p)q_1$, and to the poor is $(p-p_2)(q-\frac{1}{2}q_1)$. The loss to the Government is greater the gain to total consumers' rent by $\frac{1}{2}q_1(p_1-p_2)=\frac{1}{2}q_1^2(m_1+m_2)$.

(*b*) Suppose the ration fixed as before, but the price kept at p, the poor would buy $q-q_1$ units, as before rationing; the rich would have to reduce their purchases by q_1. The Government loses q_1p cash, but saves q_1 units sugar. The rich consumers' rent is diminished by $\frac{1}{2}q_1^2m_1$.

2. Complete control of a fixed supply by monopoly.

Suppose that a combination of firms possessed the whole supply of dates and that no more could be imported. Let this supply be $2q$ or more.

Then the ordinary theory of monopoly prices would be illustrated by the figure, if $O'L$ replaced ON as axis, where $O'L$ meets the free joint demand curve at L, so that $O'L=4q$. Then profit is maximised when $2q$ is sold at KP_1, where K is on $O'L$ and NP_1; if the supply is greater than $2q$ the excess is not sold.

Let AC meet $O'L$ at R and OO' at T_1.

Then with the restricted demand curve profit is maximised at P_2, the middle point of RT_1, and the price is *higher* than before; less is sold, and the consumption of both rich and poor is curtailed. Details and exceptional cases can be found as in the next section.

If the original supply were less than $2q$ (the amount that maximises profit), then before rationing the whole supply was sold at a price higher than p; in this case whether the price falls or rises after rationing depends on intricate relationships between the letters.

3. Complete control of a continuous supply by monopoly.

Suppose that a combination has complete control of the supply of petroleum, and can produce an indefinite amount at a cost of c units of price per unit quantity.

Let $OO'=c$, $O'L=4q$.

The price for unrestricted demand will be $NP_1=p$, and $p_1-c=KL\tan\phi=2qm_3$.

For restricted demand the price and quantity (for maximum profit) are given by P_2, as in the former case. Let p' be the new price.

From the equation of restricted demand $OT_1=p_2+2m_2q$.

$$p'=\tfrac{1}{2}(OT_1+c)=\tfrac{1}{2}(p+p_2+2q(m_2-m_3)).$$

Rise in price $=p'-p=q(m_2-m_3)-\tfrac{1}{2}q_1m_2=\tfrac{1}{2}TT_1$, which is positive, unless $q_1>\dfrac{2qm_2}{m_1+m_2}$ and the amount originally bought by the poor was very small.

The quantity sold is $\tfrac{1}{2}O'R=\tfrac{1}{2}\{2q+(p_2-c)/m_2\}$.

The diminution in quantity is—

$$\tfrac{1}{2}\{2q+(p-p_2-2qm_3)/m_2\}=\frac{qm_2}{m_1+m_2}+\tfrac{1}{2}q_1,$$

of which that to the rich is q_1 and that to the poor $\dfrac{qm_2}{m_1+m_2}-\tfrac{1}{2}q_1$.

The new amount purchased by the poor is only greater than *half* the former amount by

$$\frac{q(m_1-m_2)}{2(m_1+m_2)}.$$

It is unlikely, however, that rationing would take place in cases 2 and 3 without also the fixing of a maximum price. Without further hypothesis relating to the amount of profit that would preserve the industry, it cannot be stated how low the price could be put. Further, the supply might be diverted to other countries.

In the remaining cases we suppose a free competitive supply.

4. Constant return. Supply represented by the line GP_1.

There seems to be no obvious illustration; perhaps beer is a possible case.

Before rationing, suppose $2q$ units were sold at a price $p=NP_1$. The equation of the supply curve will be $y=p$.

The poor get the same quantity as before at the same price.

The rich get q_1 units less, *i.e.*, $\dfrac{p_1-p_2}{m_1+m_2}$ units less.

If a price lower than p were fixed, no supply would be forthcoming.

5. Decreasing return, *e.g.*, milk.

Let $y-p=m_4(x-2q)$ be a sufficient approximation to the

supply curve, so that $2q$ units are sold at p per unit before rationing. This line falls to the left from P_1.

(*a*) After rationing we have, by solving with the second joint demand equation, the price $= \dfrac{m_2p+m_4p_2}{m_2+m_4}$, and the quantity $=$

$2q-\dfrac{p-p_2}{m_2+m_2}$

The reduction in price $=\dfrac{m_4m_2}{m_2+m_4}q_1$, in quantity $=\dfrac{m_2}{m_2+m_4}q_1$.

The rich get q_1 units less, and the poor $\dfrac{m_4}{m_2+m_4}q_1$ units more, than before; the poor have, in fact, $q-\dfrac{m_2}{m_2+m_4}q_1$ units.

(*b*) To find the largest ration that rich and poor alike will buy, we must find a value of y, so that the corresponding x on the supply curve shall be twice that on the poor demand curve; the value for the ration is then $q-\dfrac{m_2q_1}{m_2+2m_4}$, and it may be written $\dfrac{m_4R+(m_2+m_4)P}{m_2+2m_4}$, where R and P are the pre-ration consumption of the rich and poor. The increase to the poor is $\dfrac{2m_4}{m_2+2m_4}q_1$, the decrease to the rich $\dfrac{2(m_2+m_4)}{m_2+2m_4}q_1$.

The price will then be $\dfrac{2m_4m_2}{m_2+2m_4}q_1$ lower than before rationing.

6. Increasing return.

Perhaps bricks will serve as an illustration, the competitors for building being cinema proprietors and the middle class.

The supply equation may be written $y-p+m_5(x-2q)=0$, where $m_5<m_3$.

This line is through P_1 within the angle AP_1G.

(*a*) After rationing at q/n per head, the price rises by $\dfrac{m_5m_2}{m_2-m_5}q_1$, and the whole quantity falls $\dfrac{m_2}{m_2-m_5}q_1$.

The poor now only secure in all $q-\dfrac{m_2}{m_2-m_5}q_1$, *i.e.* $\dfrac{m_5}{m_2-m_5}q_1$ less than before.

(*b*) If the ration is now reduced to $q-\dfrac{m_2}{m_2-2m_5}q_1$, all can buy it at price $\dfrac{m_2p-2m_5p_2}{m_2-2m_5}$, which is greater than p, but the poor get

$\frac{2m_5}{m_2-2m_5}q_1$ less than in the free market. If $2m_5>m_2$ there is no solution for an equal ration.

7. Limited supply.

Suppose that there is a supply of dates, which cannot be replenished, and that is held by a number of dealers in competition with each other, instead of by a monopoly as in Case 2.

In the ordinary conditions of an open market the whole $(2q)$ will be sold at the price p.

If now the ration is fixed at q the whole will still be sold at the greatest price obtainable, viz. p_2. The rich get q_1 less and the poor q_1 more than before, as in Case 1 (a).

If the resulting price is sufficient to give the traders a reasonable profit, this appears to be a case where rationing without price-fixing leads to favourable results. The gain in consumer's rent is, however, less than the loss to the traders.

It is to be presumed that the object of rationing is either to reduce consumption, or to equalise consumption among different classes, or to increase the amount available to the poor. The first object is obtained by rationing in all the cases analysed above, except 1 (a), where the intention is to maintain consumption, and in 7.

The difference between rich and poor, being $2q_1$ before rationing, is reduced to zero in 1 (a), 5 (b), and 6 (b); it is halved in 4, reduced to $\frac{m_2}{2(m_2+m_4)}$ of its former amount in 5 (a). It is diminished, increased, or left unchanged in 6 (a), according as $m_2>$, $<$, or $=2\,m_5$. It is increased in 2 and 3 if

$$2m_2q>3(m_1+m_2)q_1,$$

which is quite possibly the case.

The amount purchased by the poor is increased in 5 (a) and (b) and 7, and in these cases here is to be found the best defence for rationing where supply is free. It obviously can be increased in 1, where there is complete control, at a sacrifice of income. It is unchanged in 4, constant return. There is a loss, which may be considerable, in 6 (a) and (b). There is a loss in 2 and 3, except in the unlikely case that $\frac{1}{2}(1+m_1/m_2)q_1>q$.

Fixing prices below their height before rationing necessitates rationing, except in the case of monopoly, and in 7, where the fixing may have good effect by itself.

In every case of rationing (except 1 (a)) the amount sold is decreased, and in 2, 3, and 6 the price rises, while in 1 (b), 5 and 7 it falls.

Expenditure falls in all cases, with the possible exception of 6, and there is additional purchasing power in the hands of the public, which will have the effect of raising the price of unrationed goods. It is hardly necessary to say that there is a loss of consumers' surplus in this process.

The analysis can be extended to include n separate demands, if we can assume that the majority bought some of the commodity in question at the pre-rationed price. In the contrary case the joint demand curve as described below would contain negative elements, and the concave polygon would be replaced by a figure descending irregularly. In particular the solutions in cases 2 and 3 would become ambiguous, and it could not be stated generally how the price would move after rationing.

Let the equations of demand be $y-p_t+m_t\,(x-q)=0$, where t has values 1 to n, and $p_1>p_2\ .\ .\ .>p_n$.

The free joint demand is $y-P+M(x-Q)=0$, where $Q=nq$, $\frac{1}{M}=\sum\frac{1}{m}$, $P=\frac{1}{M}\sum\frac{p}{m}$.

In the figure we must suppose N shifted to the right till $ON=OMXn$, while the line AB becomes more nearly horizontal; at the same time $\overline{n-2}$ more lines similar to HN_2 must be inserted.

The rationed joint demand breaks away from AB at A and becomes a concave polygon of $\overline{n-1}$ sides of which the last is parallel to the lowest demand curve.

The equations of its sides are $Y-P_r+M_r(X-Q)=0$, where r has values 2 to n, and

$$\frac{1}{M_r}=\sum_{t=r}^{t=n}\frac{1}{m_t},\text{ and }P_r=M_r\sum_{t=r}^{t=n}\frac{p_t}{m_t}.$$

The final part of the demand is $x=Q$, from the height p_n downwards.

In brief, the straight line AC is replaced, when n is great, by a curve touching AB at A, and terminating at C shifted to the right.

The actual changes in price and quantity can no longer be expressed in simple formulæ, but the directions of movement are the same.

In Case 1 (a) the gain in consumer's rent is

$$Q(P-P_n)-\tfrac{1}{2}\Sigma(P-p_t)^2/m_t,$$

while the loss to the Government is $Q(P-P_n)$.

In Case 1 (b) all those persons in whose demand lines $p_t>P$ obtain less, and the remainder obtain the same as before.

In Cases 2 and 3 the new price is the point of contact of that tangent to AC whose intercept by $O'L$, $D'T$ is bisected at the point of contact, and this price is higher than P, while the quantity sold is less to every individual. If, however, in Case 2 the supply was less than that which would give maximum profit for an indefinitely large supply, there is no simple solution.

Case 4 is unaffected.

In Case 5 (a) the price falls, and those for whom $p_t < P$ have more.

In Case 5 (b) everyone can obtain a ration

$$q\left\{1-(P-p_n)\Big/\left(\frac{P}{e}+\frac{p_n}{e_n}\right)\right\}$$

where $e=\frac{P}{nqm'}$ and $e_n=\frac{p_n}{qm_n}$ measure the elasticity of the supply curve and the lowest demand curve.

Case 6 is unaffected.

In Case 7, if the various dealers are in complete competition and the ration fixed at $1/n$th of the whole supply, the price will tend downwards to p_n, which theoretically it would reach.

A. L. Bowley

THE MEASUREMENT OF THE INEQUALITY OF INCOMES

1. It is generally agreed that, other things being equal, a considerable reduction in the inequality of incomes found in most modern communities would be desirable. But it is not generally agreed how this inequality should be measured. The problem of the measurement of the inequality of incomes has not been much considered by English economists. It has attracted rather more attention in America, but it is in Italy that it has hitherto been most fully discussed. The importance of the problem has been obscured by the inadequacy of the available statistics of the distribution of income in all modern communities. To such statistics as we have, no very fine measures can be applied. The improvement of these statistics is the business of statisticians, but the problem of measuring and comparing the inequalities, which improved statistics would more precisely reveal, should be capable of theoretical solution now. No complete solution is presented in this paper, but only a discussion of certain points of principle and method.

2. First, as to the nature of the problem. An American writer has expressed the view that "the statistical problem before the economist in determining upon a measure of the inequality in the distribution of wealth is identical with that of the biologist in determining upon a measure of the inequality in the distribution of any physical characteristic."[1] But this is clearly wrong. For the economist is primarily interested, not in the distribution of income as such, but in the effects of the distribution of income upon the distribution and total amount of economic welfare, which may be derived from income. We have to deal, therefore, not merely with one variable, but with two, or possibly more, between which certain functional relations may be presumed to exist.

A partial analogy would be found in the problem of measuring the inequality of rainfall in the various districts of a large agricultural area. From the point of view of the cultivator, what is

[1] Persons, *Quarterly Journal of Economics*, 1908–9, p. 431.

important is not rainfall as such, but the effects of rainfall upon the crop which may be raised from the land. Between rainfall and crop there will be a certain relation, the discovery of which will be a matter of practical importance. The objection to great inequality of rainfall is the resulting loss of potential crop. The objection to great inequality of incomes is the resulting loss of potential economic welfare.

Let us assume, as is reasonable in a preliminary discussion, that the economic welfare of different persons is additive, that the relation of income to economic welfare is the same for all members of the community, and that, for each individual, marginal economic welfare diminishes as income increases. Then, if a given income is to be distributed among a given number of persons, it is evident that economic welfare will be a maximum, when all incomes are equal. It follows that the inequality of any given distribution may conveniently be defined as the ratio of the total economic welfare attainable under an equal distribution to the total economic welfare attained under the given distribution. This ratio is equal to unity for an equal distribution, and is greater than unity for all unequal distributions. It may, therefore, be preferred to define inequality as this ratio minus unity, but for comparative purposes this modification of the definition is unnecessary. Inequality, however, though it may be *defined* in terms of economic welfare, must be *measured* in terms of income.

3. Starting from the above definition, it is clear that, if we assume any precise functional relation between income and economic welfare, we can deduce a corresponding measure of inequality. It is also clear that, under this procedure, no *one* measure of inequality will emerge, whose appropriateness will be independent of the particular functional relation assumed.

The procedure suggested may be illustrated by two examples. Take, first, the hypothesis that proportionate additions to income, in excess of that required for "bare subsistence," make equal additions to economic welfare. This is Bernoulli's hypothesis, except that economic welfare is substituted for satisfaction.[1]

Then, if w = economic welfare and x = income, we have—

$$dw = \frac{dx}{x},$$

or

$$w = \log x + c.$$

If $x_1, x_2, \dots x_n$ are individual incomes, whose arithmetic mean

[1] A discussion of the distinction, if any, between economic welfare and satisfaction lies outside the scope of this paper.

is x_a and geometric mean x_g, the corresponding measure of inequality is, by our definition—

$$\frac{n \log x_a + nc}{n \log x_g + nc} = \frac{\log x_a + c}{\log x_g + c}.$$

If we assume that, when $x=1$, $w=0$, then $c=0$, and our measure of inequality becomes $\frac{\log x_a}{\log x_g}$. It may, at first sight, be thought that a still simpler, and practically equivalent, measure will be $\frac{x_a}{x_g}$, but this simplification raises a question to which further reference will be made below.

The above hypothesis, however, is not satisfactory. Apart from the difficulty that only income in excess of that required for "bare subsistence" is taken into account, it is clear that too rapid a rate of increase of economic welfare is assumed, when income becomes large. After a certain point it is pretty obvious that more than proportionate additions to income will generally be required, in order to make equal additions to economic welfare. To be even tolerably realistic, a formula connecting income with economic welfare should satisfy the following conditions.

(1) Equal increases in economic welfare, at any rate after income is greater than a certain amount, should correspond to more than proportionate increases in income; (2) economic welfare should tend to a finite limit, as income increases indefinitely; (3) economic welfare should be zero for a certain amount of income, and negative for smaller amounts. These conditions are satisfied, if we assume that the relation of economic welfare to income is of the form $dw = \frac{dx}{x^2}$, so that $w = c - \frac{1}{x}$, where c is a constant. For then, however large x becomes, w can never become larger than c, and, when x is less than $\frac{1}{c}$, w is negative.[1] If we adopt this formula, which appears to be a good compromise of its kind between plausibility and simplicity, the corresponding measure of inequality is—

$$\frac{nc - \frac{n}{x_a}}{nc - \frac{n}{x_h}} = \frac{c - \frac{1}{x_a}}{c - \frac{1}{x_h}}$$

where x_h is the harmonic mean of the individual incomes, and

[1] If it were practicable to fix a unit of economic welfare, it would have to be fixed, in relation to the unit of income, so that both these attributes of c would hold good. There is no theoretical objection to this.

c, as already stated, the reciprocal of the minimum income, which yields positive economic welfare.

Both the measures of inequality obtained above are simple in form and have a certain theoretical elegance. But neither is readily applicable to statistics. The arithmetic mean is, indeed, easily calculated from perfect statistics, and fairly easily approximated to from imperfect statistics, but the corresponding calculations for the geometric and harmonic means are very laborious, when the number of individual incomes is large, and the corresponding approximations, especially for the harmonic mean, are practically impossible, where the statistics show more than a small degree of imperfection. The first of the two measures, moreover, involves an estimate of the income necessary for "bare subsistence," and the second an estimate of the minimum income which yields positive economic welfare. And neither of these estimates are easily made. Nor, of course, have we really any precise knowledge of the functional relation between income and economic welfare.

4. Failing such precise knowledge, we may still lay down certain general principles, which shall serve as tests, to which various plausible measures of inequality may be submitted. We have, first, what may be called the principle of transfers. Maintaining the assumptions laid down in Section 2 above, we may safely say that, if there are only two income-receivers, and a transfer of income takes place from the richer to the poorer, inequality is diminished.[1] There is, indeed, an obvious limiting condition. For the transfer must not be so large, as more than to reverse the relative positions of the two income-receivers, and it will produce its maximum result, that is to say, create equality, when it is equal to half the difference between the two incomes. And we may safely go further and say that, however great the number of income-receivers and whatever the amount of their incomes, any transfer between any two of them, or, in general, any series of such transfers, subject to the above condition, will diminish inequality.[2] It is possible that, in comparing two distributions, in which both the total income and the number of income-receivers are the same, we may see that one might be able to be evolved from the other by means of a series of transfers

[1] Compare Pigou, *Wealth and Welfare*, p. 24.

[2] Inequality is certain to be diminished by a series of transfers such that all transfers from A, the richer, to B, the poorer, still leave A richer than, or just as rich as, B. But if some of the transfers make B richer than A, it is possible that the effects of the series of transfers might cancel out and leave the inequality the same as before.

of this kind. In such a case we could say with certainty that the inequality of the one was less than that of the other.

5. Let us now apply the principle of transfers to various measures of dispersion used by statisticians for measuring inequality in general. A distinction may be drawn between measures of relative dispersion and measures of absolute dispersion. Measures of relative dispersion will be simply numbers, while measures of absolute dispersion will be, in the present case, numbers of units of income. Most of the general measures of dispersion proposed by statisticians are measures of absolute dispersion, but are easily transformed into measures of relative dispersion, when divided by an appropriate divisor.

Consider first the mean deviation from the arithmetic mean. This measure is the sum of two parts, one of which comprises the deviations above, the other the deviations below, the mean.[1] It is a bad measure, judged by the principle of transfers, for it is unaffected by transfers within either part, provided that no income previously above the mean is reduced below it, and conversely. The transfer of a given sum from incomes above the mean to incomes below it, as, for example, by the provision of old age pensions for persons of small incomes from the proceeds of a tax on large incomes, would obviously reduce the mean deviation. But it would be unaffected, if such pensions were provided by a tax levied on those whose incomes were just below the mean, or if additional comforts for millionaires were provided from a tax on those whose incomes were just above the mean, provided that none of the latter were reduced below the mean by the tax.

The mean deviation is a measure of absolute dispersion. If we divide it by the arithmetic mean, we obtain what we may call the relative mean deviation, which is equally insensitive to transfers wholly above or wholly below the mean.

Consider next the standard, or mean square, deviation from the arithmetic mean, *i.e.*, the square root of the arithmetic average of the squares of deviations from the arithmetic mean. The standard deviation is perfectly sensitive to transfers,[2] and thus passes our first test with distinction. Dividing the standard

[1] Thus if S_1 is the sum of the deviations of incomes greater than the mean and S_2 the sum of the deviations of incomes less than the mean, the mean deviation $= \frac{1}{n}(S_1+S_2)$, where n is the total number of incomes.

[2] For, if δ be the initial standard deviation of any distribution of n incomes, and δ' the standard deviation after an amount h has been transferred from an income x_1 to an income x_2, all other incomes remaining the same, we have $n^2(\delta^2-\delta'^2)=2h(x_1-x_2)-2h^2$. Therefore $\delta=\delta'$, only if $h=o$ or if $h=x_1-x_2$.

deviation by the arithmetic mean, we obtain what may be called the relative standard deviation. This, too, is perfectly sensitive to transfers.

Consider next Professor Bowley's quartile measure of dispersion, $\frac{Q_3 - Q_1}{Q_3 + Q_1}$, where Q_1 and Q_3 are quartiles.[1] This is a measure of relative dispersion. It is sensitive to transfers, in so far as these involve movements of the quartiles, but not otherwise. In this respect it is somewhat more sensitive than the mean deviation, but much less sensitive than the standard deviation.

An interesting measure of dispersion, which has not, I think, hitherto attracted the attention of English writers, is Professor Gini's mean difference, which, as applied to incomes, is the arithmetic average of the differences, taken positively, between all possible pairs of incomes.[2] It may be shown that this mean difference is equal to the weighted arithmetic mean of deviations from the median, the weights being proportionate to the number of incomes, increased by one, which are intermediate in size between the median and the income whose deviation is being considered.[3] The mean difference, thus defined, is a measure of absolute dispersion. Dividing it by the arithmetic mean, we obtain a measure of relative dispersion, which may be called the relative mean difference. The mean difference, whether absolute or relative, is perfectly sensitive to transfers.

Another interesting measure of inequality is based upon what some writers have called a Lorenz curve.[4] (See next page.) This is a simple and convenient graphical method of exhibiting any distribution of income, provided that our interest is confined to proportions, rather than absolute amounts, both of total income and of the number of income-receivers.

Along the axis Ox are measured percentages of the total income, and along the axis Oy the minimum percentages of the total number of income-receivers, who receive various percentages of the total income. For example, if the richest 20 per cent. of the population received 75 per cent. of the total income, this fact would determine one point ($x=75$, $y=20$), upon the Lorenz curve. A perfectly equal distribution

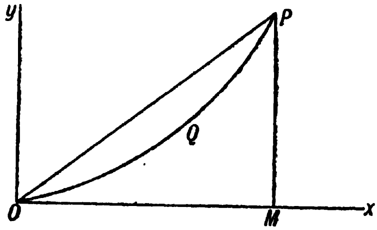
[1] Compare Bowley, *Elements of Statistics*, p. 136.

[2] See, for a discussion of this measure, Gini, *Variabilità e Mutabilità*.

[3] Gini, *ibid.*, pp. 32–33.

[4] Originally proposed by Mr. M. O. Lorenz, *Publications of the American Statistical Association* (1907), Vol. ix, pp. 209 ff. M. Séailles also recommended it, apparently independently, in 1910 in his *Répartition des Fortunes en France*, pp. 56–7. Sir Leo Chiozza Money had already given hints of this measure in his *Riches and Poverty*, first published in 1905.

would be represented by the straight line OP inclined at an angle of 45° to either axis. An unequal distribution would be represented by a curve, such as OQP, lying below the line OP. If MP is perpendicular to OM, $OM = MP = 100$, and an obvious measure of inequality is the area enclosed between the Lorenz curve and the line of equal distribution OP. The larger this area, the larger the inequality.



A remarkable relation has been established between this measure of inequality and the relative mean difference, the former measure being always equal to half the latter.[1]

Something will be said below concerning Professor Pareto's well-known measure of the inequality of incomes. But this measure cannot be tested, with reference to the principle of transfers, since it is based upon a supposed law, according to which, if the total income and the number of income-receivers are known, the distribution is uniquely determined.

6. So far, then, as tested by the principle of transfers, the standard deviation, whether absolute or relative, and the mean difference, whether absolute or relative, are good measures; Professor Bowley's quartile measure is a very indifferent measure; the mean deviation, whether absolute or relative, is a bad measure; and Professor Pareto's measure evades judgment. But the scope of the principle of transfers, as a test of measures of inequality, is narrowly limited. It can only be applied to some cases—and by no means to all—in which both the total income and the number of income-receivers are constant, and distribution varies.[2]

[1] For a mathematical proof of this see Ricci, *L'Indice di Variabilità*, pp. 22–24. The proof was first given, apparently, by Professor Gini. Another most elegant proposition, due to Professor Ricci (*ibid.*, pp. 32–33), is that, if any straight line be drawn parallel to the line of equal distribution, then all the Lorenz curves, to which this straight line is a tangent, represent distributions having the same relative mean deviation.

[2] Professor Pigou (*Wealth and Welfare*, p. 25 n.) uses the following argument to prove that, in these circumstances, a reduction in the standard deviation will probably increase aggregate satisfaction. "If A be the mean income and

It cannot be applied when either the total income or the number of income-receivers varies, or when both vary simultaneously. For these more general cases further tests are required, and three general principles suggest themselves as serviceable for this purpose.

7. We have, first, what may be called the principle of proportionate additions to incomes. It is sometimes suggested that proportionate additions to, or subtractions from, all incomes will leave inequality unaffected.[1] But, if the definition of inequality given above be accepted, this is not so. It appears, rather, that proportionate additions to all incomes diminish inequality, and that proportionate subtractions increase it. This is the principle of proportionate additions to incomes just referred to. A general proof of this principle presents difficulties, and is not attempted here, but the proof in two important special cases is easy. For, first, assume, using the same notation as in Section 3 above, that the relation of income to economic welfare is $w=\log x$. Then, if δ be the inequality of any given distribution, we have

$$\delta=\frac{\log x_a}{\log x_g}$$

Let all incomes be multiplied by θ and let δ' be the inequality of the new distribution.

a_1, a_2, ... deviations from the mean, aggregate satisfaction, on our assumption

$$=nf(A)+(a_1+a_2+\dots)f'+\frac{1}{2!}(a_1^2+a_2^2+\dots)f''+\frac{1}{3!}(a_1^3+a_2^3+\dots)f'''+\dots$$

But we know that $a_1+a_2+\dots=0$. We know nothing to suggest whether the sum of the terms beyond the third is positive or negative. If, therefore, the third and following terms are small relatively to the second term, it is certain, and, in general, it is probable that aggregate satisfaction is larger, the smaller is $(a_1^2+a_2^2+\dots)$. This latter sum, of course, varies in the same sense as the .... standard deviation." This argument would be strong, if all deviations were small, *i.e.* if inequality were already very small. But when, as is the case in all important modern communities, a number of the deviations are very large, it is quite likely that successive terms in the expansion will go on increasing (numerically) for some time, and this is specially likely as regards the series of alternate terms, which involve deviations raised to *even* powers. This likelihood will vary according to the form of the function f, but it seems clear that the third and following terms cannot, in general, be neglected. It follows that, in general, there is no certainty and only a somewhat low and problematical degree of probability, that a reduction in the standard deviation will increase satisfaction. There is no reason to suppose that it is not at least equally probable that a reduction in certain other measures of dispersion will have the same effect. One good test of the relative appropriateness of various measures of the inequality of incomes would be the relative probability that a reduction in such measures would increase economic welfare (or satisfaction), on the assumption that both the total income and the number of income receivers were constants. But the evaluation of such relative probabilities presents difficulties.

[1] See, *e.g.*, Taussig, *Principles of Economics*, II, p. 485.

Then $\delta' = \dfrac{\log \theta + \log x_a}{\log \theta + \log x_g}$, and, since $x_a > x_g$, we have $\delta > \delta'$, if $\log \theta > 0$, that is to say, if $\theta > 1$.

Similarly, $\delta < \delta'$, if $\theta < 1$.

That is to say, proportionate additions to all incomes diminish inequality and proportionate subtractions increase it.[1] This is true, if x is the total income of any individual. *A fortiori*, it is true, if x is surplus income in excess of "bare subsistence." For equal proportionate additions to surplus income involve larger proportionate additions to total income, when the latter is large, than when it is small. A series of transfers from richer to poorer will, therefore, transform proportionate additions to surplus incomes into proportionate additions to total incomes.

Next assume that the relation of income to economic welfare is $w = c - \dfrac{1}{x}$. Then, if δ be the inequality of any given distribution, we have $\delta = \dfrac{c - \frac{1}{x_a}}{c - \frac{1}{x_h}}$.

Let all incomes be multiplied by θ and let δ' be the inequality of the new distribution.

Then $\delta' = \dfrac{c - \frac{1}{\theta x_a}}{c - \frac{1}{\theta x_h}}$, and we have $\delta > \delta'$, if $(x_a - x_h)\ (\theta - 1) > 0$.

But $x_a > x_h$. $\therefore \delta > \delta'$, if $\theta > 1$.

Similarly, $\delta < \delta'$, if $\theta < 1$.

That is to say, proportionate additions to all incomes diminish inequality, and proportionate subtractions increase it.

8. If the principle of proportionate additions to incomes thus enunciated be provisionally accepted as true generally,[2] and not merely for the particular hypotheses just examined, a second principle follows as a corollary. This may be called the principle of equal additions to incomes, and is to the effect that equal additions to all incomes diminish inequality and equal subtractions increase it. Here, again, a direct general proof presents

[1] If we write $\delta = x_a/x_g$, instead of $\delta = \log x_a / \log x_g$, proportionate additions or subtractions will leave inequality unaffected. It follows that x_a/x_g is not a mere simplification of the measure $\log x_a / \log x_g$ arrived at in section 3 above, but is a distinct, and inferior, measure.

[2] The additions must, of course, be genuine. Inequality in this country would not be diminished by reckoning everyone's income in shillings, instead of in pounds. Units of money income in any two cases to be compared must have approximately equal purchasing power.

difficulties, though several writers have regarded the principle as so obvious that no proof is required.[1] But as a corollary of the preceding principle the proof is easy. For, let the total additional income involved in proportionate additions to all incomes be redistributed among income-receivers in such a way as to make equal, instead of proportionate, additions to all incomes. Then the addition to maximum economic welfare attainable is the same in both cases. But the addition to economic welfare actually attained is obviously greater, when additions to incomes are equal, than when they are proportionate. Therefore, inequality is smaller after equal additions have been made than after proportionate additions have been made, the total additional income being the same in both cases. But proportionate additions reduce inequality. Therefore, *a fortiori*, equal additions reduce inequality.[2]

9. The third principle may be called the principle of proportionate additions to persons, and is to the effect that inequality is unaffected if proportionate additions are made to the number of persons receiving incomes of any given amount. This, again, is easily proved. For the maximum economic welfare attainable and the economic welfare actually attained will both have been increased in the same proportion, and hence their ratio will be unaltered.

10. We may now test, by means of these three principles, the measures of inequality which have already been tested by means of the principle of transfers. Simple mathematical operations yield the following results :—

Upon:	Effect of Proportionate Additions to Incomes.	Effect of Equal Additions to Incomes.	Effect of Proportionate Additions to Persons.
Absolute Mean Deviation.	Increased ...	Unchanged ...	Unchanged
Relative Mean Deviation.	Unchanged ...	Diminished ...	Unchanged
Absolute Standard Deviation. ...	Increased ...	Unchanged ...	Unchanged
Relative Standard Deviation. ...	Unchanged ...	Diminished ...	Unchanged
Bowley's Quartile Measure.	Unchanged ...	Diminished ...	Unchanged
Absolute Mean Difference.	Increased ...	Unchanged ...	Unchanged
Relative Mean Difference.	Unchanged ...	Diminished ...	Unchanged

Here the three absolute measures of dispersion give one set of identical results, and the four relative measures another. None

[1] "An equal addition to everyone's income . . . . . obviously makes incomes more equal than they would otherwise be." Cannan, *Elementary Political Economy*, p. 137. See also Loria, *La Sintesi Economica*, p. 369.

[2] Or alternatively, the total additional income being given, a distribution involving equal additions to all incomes may be evolved from a distribution involving proportionate additions to all incomes by means of a series of transfers from richer to poorer.

of the seven measures pass the test of proportionate additions to incomes, but the relative measures come nearer to doing so than the absolute measures.[1] The relative measures pass the test of equal additions to incomes, but the absolute measures do not. All seven measures pass the test of proportionate additions to persons. We may therefore eliminate the three absolute measures from further consideration. As between the four relative measures, the order of merit established by reference to the principle of transfers may stand, so far, unchanged, viz. :—

1 and 2. Relative standard deviation and relative mean difference (bracketed equal).
3. Bowley's quartile measure.
4. Relative mean deviation.

11. Can Professor Pareto's measure be brought into this order of merit? This is a relative measure, which is only applicable when distribution is approximately of the form $y=\frac{A}{x^a}$, where x is any income, y the number of incomes greater than x, and A and a constants for any given distribution, but variables for different distributions.[2] Assuming this formula for distribution, which, as Professor Bowley has shown,[3] is the same thing as assuming that the average of all incomes greater than x is proportional to x, Professor Pareto treats a as the measure of inequality, in the sense that, the greater a, the greater inequality. It follows mathematically that "neither an increase in the minimum income nor a diminution in the inequality of incomes can come about, except when the total income increases more rapidly than the population."[4] In other words, increased production per head is both a necessary condition and a sufficient guarantee of a diminution of inequality.

Professor Pareto's law, about which much has been written both by way of criticism and of qualified appreciation, implies a uniformity in distribution, which makes it impossible to apply either the principle of transfers or the principle of equal additions to incomes. Like the four other measures just considered, it is

[1] It should be noticed that, if we are comparing the inequality of two distributions by means of a measure which is unchanged by proportionate additions to incomes, it is not necessary that the unit of money income in the two distributions should have approximately the same purchasing power.

[2] Compare Pareto, *Cours d'Economie Politique*, II, pp. 305 ff, and *Manuel d'Economie Politique*, pp. 391 ff.

[3] *Measurement of Social Phenomena*, p. 106.

[4] *Cours*, II, pp. 320–1.

unchanged both by proportionate additions to incomes and by proportionate additions to persons. It has been suggested[1] that this measure, where it is applicable, will be in general accord with other plausible measures of dispersion. But, in view of the investigations of Italian economists, this is very doubtful.[2] It seems on the whole more likely, though the question requires further study, that, in order to bring it into general accord with other measures, the Pareto measure should be inverted, so that, the greater a, the smaller inequality. But such an inversion will explode Professor Pareto's alleged economic harmonies, and it will follow, according to his law, that increased production per head will always mean increased inequality!

According to Professor Gini,[3] many actual distributions of income approximate to the formula

$$n = \frac{1}{c} s^{\delta}, \text{ or } \log n = \delta \log s - \log c,$$

where s is the total income of the n richest income-receivers and δ and c are constants for any given distribution. He proposes δ as a measure of inequality, or "index of concentration," as he prefers to call it, such that, the greater δ, the greater inequality. This formula is a more convenient variant of Professor Pareto's, such that $\delta = \frac{a}{a-1}$, and, as a diminishes from any quantity greater than one down to one, δ increases up to infinity.

The equation $\log n = \delta \log s - \log c$ is easily transformed into that of a Lorenz curve. For, if N is the total number of income-receivers and S the total income, we have

$$\log N = \delta \log S - \log c.$$

$$\therefore \log \frac{n}{N} = \delta \log \frac{s}{S} \, .$$

Putting $\frac{n}{N} = \frac{y}{100}$ and $\frac{s}{S} = \frac{x}{100}$, we have the equation of a Lorenz curve,

$$\log \frac{y}{100} = \delta \log \frac{x}{100}$$

or

$$\frac{y}{100} = \left(\frac{x}{100}\right) .$$

[1] See, *e.g.*, Pigou, *Wealth and Welfare*, pp. 25 and 72.

[2] See Bresciani, *Giornale degli Economisti*, August 1905, pp. 117-8, and January 1907, pp. 27-8. Ricci, *L'Indice di Variabilità*, pp. 43-6, Gini, *Variabilità* p. 65 and pp. 70-1. Compare also Persons, *Quarterly Journal of Economics*, 1908-9, pp. 420-1, and Benini, *Principii di Statistica Metodologica*, p. 187. Professor Benini inverts Professor Pareto's measure, but apparently without realising that he has done so.

[3] *Ibid.*, pp. 72 ff.

The area enclosed between this Lorenz curve and the line of equal distribution is—

$$\tfrac{1}{2}(100)^2 - \int_{x=0}^{x=100} y\,dx$$

$$= \tfrac{1}{2}(100)^2 - \int^{100} 100\,\frac{x^\delta}{(100)^\delta}\,dx$$

$$= (100)^2\left(\tfrac{1}{2} - \frac{1}{\delta+1}\right).$$

Thus, the greater δ, the larger is the above area, and the larger the relative mean difference.[1] There is thus some ground for believing, though I do not here definitely commit myself to the belief, that *the reciprocal* of Professor Pareto's measure is a mere variant of the relative mean difference, in the particular case, when distribution is approximately according to Pareto's law. In this particular case, then, Professor Pareto's measure would have no independent significance, and, in the more general case, when distribution may depart widely from Pareto's law, the measure has, of course, no general significance at all. It will, therefore, be provisionally set aside in this discussion.

12. Returning to the four measures set out in order of merit at the end of Section 10, this order is based on theoretical advantages. But account must also be taken of practical applicability to statistics. Both the relative mean deviation and the quartile measure are more easily applicable than either of their two rivals to perfect statistics, and applicable, with less risk of serious error, to imperfect statistics. As regards perfect, or nearly perfect, statistics, the advantage of the former pair over the latter relates only to laboriousness and not to accuracy, and is not, therefore, a matter of great importance. But, as regards markedly imperfect statistics, such as are actually available, the advantage relates to accuracy as well as to laboriousness and is, therefore, vital.

The provisional conclusion which suggests itself, is as follows. When statistics are so imperfect, that neither the relative standard deviation nor the relative mean difference can be applied with any expectation of reasonable accuracy, we must make shift with the relative mean deviation and the quartile measure. It is some palliation of the comparative insensitiveness

[1] This index δ has been used by several Italian writers in enquiries into distributions of income. See, *e.g.*, Savorgnan, *La Distribuzione dei Redditi nelle Provincie e nelle Grandi Città dell' Austria*, and Porru, *La Concentrazione della Ricchezza nelle Diverse Regioni d'Italia*

to transfers, which is a defect of both the latter measures, that each is sensitive to many possible transfers, to which the other is insensitive. If, therefore, both give the same result in any particular comparison, their evidence is to some extent corroborative.

If statistics are so far improved that the relative standard deviation and the relative mean difference are applicable, these are to be preferred to the two measures just mentioned. If a single measure is to be used, the relative mean difference is, perhaps, slightly preferable, owing to the graphical convenience of the Lorenz curve. Probably, however, it will be desirable, at any rate for some time to come, not to rely upon the evidence of a single measure, but upon the corroboration of several. Given perfect, or nearly perfect, statistics, it is worth while considering whether corroboration may not also be sought from the measure $\frac{\log x_a}{\log x_g}$, applied, for the sake of simplicity, to total incomes, and not to surplus incomes in excess of the requirements of "bare subsistence." For this measure passes our test of proportionate additions to incomes, which none of the other four survivors do. In most practical cases, no doubt, these five measures will give results pointing in the same direction, but in some cases they may not do so.

Meanwhile, the chief practical necessity is the improvement of existing statistical information, especially as regards the smaller incomes. This paper may be compared to an essay in a few of the principles of brickmaking. But, until a greater abundance of straw is forthcoming, these principles cannot be put to the test of practice.

HUGH DALTON

REVIEWS

Currency and Credit. By R. G. HAWTREY. (London: Longmans, Green and Co. 1919. Pp. vii + 393.)

THIS is one of the most original and profound treatises on the Theory of Money which has appeared for many years. It is so "mixed" a book—mixed, that is to say, in the sense of combining two or three quite different kinds of book in one—and is so odd a combination of lucidity and obscurity, of easy writing and indigestible lumps, that it may be a little time before its full reputation is achieved. But it is a book with some fundamental thought in it, and likely, in my judgment, to exercise a significant influence on future expositions of monetary theory, at any rate in England.

The author has thrown together three separate treatments of his subject in a way which seems to suggest that they have some more intimate connection in his own mind than they are likely to have in the reader's. The first treats of the Philosophy or Logic of Monetary Theory, the second of some descriptive and realistic aspects of the subject (the Foreign Exchanges, Systems of Note Issue, and so forth), and the third of its History. The second of these is, I think, much inferior to the others, being insufficiently realistic to be valuable from that point of view and not necessary to the rest of the book. The two other sections are each of the utmost interest, though the connection between them is slight.

Mr. Hawtrey begins with an inquiry into the *logical* origin of money, as distinguished from its historical origin. No one who cares to think deeply about money ought to omit to read the first three chapters and the last chapter of the book, from which he will gather Mr. Hawtrey's central idea. Let him then turn to Chapters VIII and X (if he finds, as he well may, Chapters IV to VII a little stodgy). It will be useless for me to attempt to summarise these chapters, but a few indications may be given.

There are three ways of approaching the subject open to the lecturer or the writer of to-day. There is the crude approach of

the Bullionist, who regards a lump of metal as normal tissue and all other growths as cancerous, well represented by Mr. Hawtrey's quotation from Canning: "I contend that a certain specified weight of gold or silver, of a certain fineness, is the only definition of a pound sterling which an Englishman, desirous of conforming to the laws of his country, is bound to regard or understand." There is also the over-subtle Cartalist approach of Knapp, with its whole emphasis on the State and the legal-tender aspect of money, as Hegelian and German as Canning's is Johnsonian and English, yet a great intellectual advance on what preceded it. And, finally, there is Mr. Hawtrey's not less subtle doctrine of an abstract Money of Account and his theory of "the unspent margin." Mr. Hawtrey imagines a civilised society without a currency and without a legal tender, and yet requiring and employing a unit for the measurement of debts, which involves them in many of the same complexities and consequences as we experience ourselves; whence he argues that the abstract money of account is more fundamental than either the nature of the circulating currency or the character of the laws, which we shall understand all the better by studying the raw element before it has been embodied and established by the one and the other.

From his doctrine that "the total effective demand for commodities in the market is limited to the number of units of the money of account that dealers are prepared to offer, and the number that they are prepared to offer over any period of time is limited according to the number that they hope to receive," Mr. Hawtrey passes easily and naturally to his enunciation of the Quantity Theory by reference to the "unspent margin"—that is to say, the aggregate of unspent purchasing power in circulation. The quantity theory, according to him, equates the unspent margin of purchasing power, which is a total of monetary units, to the command over wealth which the people hold in reserve, and so determines the value of the monetary unit in terms of wealth. Let the reader turn to the original for further elucidation of this sentence. It is not dissimilar to a doctrine which has long been expounded first by Dr. Marshall and then by Professor Pigou, more amply in lectures than in print; but anyone who ponders and understands Mr. Hawtrey's[1] theories of an abstract money of account and of the unspent margin will know a great deal more about the subject than is at all usual.

Mr. Hawtrey's treatment of Financial Crises and his linking on of this to his theory of an abstract Money of Account is also

[1] I surmise that Mr. Hawtrey arrived at his results independently.

a most interesting section of the book. There is in any credit system, according to him, an innate tendency towards depreciation. "Credit is by nature unruly. It is always straining at its tether, or, rather, it is perpetually starting to run away, and then being pulled up with a jerk when the limit of inflation consistent with the maintenance of the metallic standard is reached." "A crisis may be regarded as a struggle to maintain the standard of value. . . . The true significance of a crisis is this—that when the monetary unit has been allowed to depreciate it can only be restored at the cost of increasing the burden of all debts, and that, if this is done too suddenly, the debts outweigh the assets of the debtors and cause a multitude of failures." A tendency towards expansionism makes currency seem scarce and leads to a clamour for more currency, although the cure can only lie in contraction. Yet "a central bank or a government will only be human if before the protests of the business world it shrinks from the paradoxical course of remedying a shortage of currency by making a still greater shortage."

There remains Mr. Hawtrey's history (some substantial extracts from which have already appeared in THE ECONOMIC JOURNAL). His chapters on the Assignats and the Bank Restriction of 1797 are the most important. The details he has collected are fascinating, especially to us who live in the currency turmoil of to-day. So much has been written already on the Bank Restriction that it might be thought difficult to add anything substantial. But Mr. Hawtrey's conclusion, that the Bank Restriction was primarily due to the demand for gold in France following on the abandonment of the Assignats, is, so far as I know, novel. Mr. Hawtrey's survey of English currency from the Tudors to the final establishment of the gold standard and his account of the final triumph of this standard over its competitor (though much more hackneyed) are also useful. In the old dispute between the historical and analytical schools of Political Economy, the former seemed sometimes to argue that Economics ought only to be written by economic historians. Mr. Hawtrey is able to make the tenet plausible that economic history should only be written by economists. Sometimes, perhaps, more instruction can be extracted from the past by one who is accustomed to interpret the present than *vice versa*. At any rate, it may be a sign of the times that so pure a theorist as Mr. Hawtrey should be so much interested in economic history. I agree with him in thinking that the economist cannot do without it, and will find it more and more relevant to his study of the

present, now that the transitional and altogether abnormal episode of the nineteenth century is over and done with.

Mr. Hawtrey takes, in conclusion, a brief forward glance. He points out how at this moment the always-present tendency to inflation is accentuated. "If the supply of savings is insufficient to make such rapid progress with the reconstitution of the country's capital as traders desire, then the borrowers will tend to supplement savings with temporary borrowings." He discusses with much wisdom the problem of the future of the standard of value—whether it should be restored to its former parity with gold, or stabilised somewhere near its present level. "Financial correctitude," he concludes, "if pressed to the point of pedantry, may lead to a vice of deflationism as bad in its way as inflationism." Here is a grain of comfort for the City from the Director of Financial Enquiries at the Treasury.

J. M. KEYNES

The Skilled Labourer, 1760–1832. By J. L. HAMMOND and BARBARA HAMMOND. (London: Longmans. 1919. Pp. x + 397.)

LIKE Mr. and Mrs. Hammond's earlier books, this is a study of the government of a nation which was from the human standpoint economically diseased, by puzzled and unsympathetic men who did not recognise the symptoms. It is not in any sense an exhaustive account of skilled labour in the period under review. The only groups of labourers whom we get to know intimately are the miners of one area (Tyne and Wear) and the textile workers of all areas, including the framework knitters. A pure economist dealing with this period under the "skilled labourer" rubric would no doubt have introduced us to a few Londoners besides the Spitalfields weavers. He would have gone to Birmingham and Sheffield and Northampton; and would have discussed the creation in this period, for it really came to that, of the most important type of skilled labourer in the whole modern world—the engineer.

These are not criticisms of the book, which is not that of a pure economist, but indications of what is to be expected from it. There are two chapters on the miners; five on the textile workers; three fascinating chapters on the Luddites, which make contributions of first-rate value to local and general history; and a final chapter, in illustration of the methods of government, on "The Adventures of Oliver the Spy" and *agent provocateur*.

In previous volumes Mr. and Mrs. Hammond's research among the Home Office papers yielded results of great value for social history, but of rather less value for economic history proper. With this volume it is different. As apparently a good deal of working-class correspondence was tapped in the *cabinet noir* of the Home Office, and as the book has a great deal to say about the relations of various working-class organisations, the material supplied by these "intercepts," as diplomatists of the period called them, is invaluable. So are the spies' reports of trade union and other meetings, though they need—and receive—careful handling. For instance, the Spitalfields weavers are in correspondence with Dublin in 1769 (p. 205); and that powerful union of the woolcombers holds congresses in the teeth of the Combination Laws in 1812 (p. 202). Now and again Home Office material suffices to upset some bit of legendary industrial history; as, for instance, the notion that Luddite trouble at Loughborough drove the lace trade from the Midlands to Devon (p. 242). Of course, when the Luddite trials begin or when the military are being moved to check real or imaginary plans for violence, the Home Office evidence is indispensable.

The generals whose unpleasant business it was to obey Melbourne, Sidmouth and Castlereagh come out on the whole very well. Sir Henry Bouverie in 1830 takes a view of a spinners' strike which one can imagine being labelled to-day "pro-Bolshevik" by the kind of person who uses that kind of phrase (p. 133). And Maitland—Waterloo Maitland of the Guards who "upped and at 'em," I think—is very cool about the type of employer who "would have made the military probably the means of lowering the labour of his workmen even below their present level" at Manchester in 1812 (p. 257).

Of industrial history proper much the strongest chapter is the long one (p. 136–205) on "The Woollen and Worsted Industries." It is divided by craft; spinners, woollen weavers, croppers, worsted weavers, woolcombers. In each case the exact amount of "industrial revolution" that occurred within the period and its effects are most admirably gauged. Perhaps the decay of Norwich is a trifle ante-dated (p. 153, and *cf.* this JOURNAL, XX., 195 *sqq.*); but it is hard to find a real defect in the handling of a very intricate business, and there is abundance of fresh information about working-class organisations and the attitude of Government towards them all along the line. It is curious to notice how hard the old tradition of Government regulation of the wool industries died. As late as 1805 the notion is being discussed

sympathetically in Whitehall (p. 185). Even an interview of the croppers with the Prime Minister is suggested, quite in the modern manner (p. 185). Though a fair amount has been written about the wool industries at this time, there is nowhere an account so well balanced or so informing, quite apart from the new matter.

Cotton offered the authors a less promising, because a better tilled, field. The main interest lies in the various aspects of the minimum wage agitation among weavers, which generally took the form, and not only in cotton, of a suggestion that the Spitalfields Act should be extended. This must be taken in connection with the silk chapter, where Home Office papers and the calendars of Domestic Papers for the eighteenth century are made to add very appreciably to our knowledge of the circumstances in which the Act originally passed. There is also some new matter from the Place MSS. and elsewhere in connection with the repeal of the Act in 1824. The authors have, however, overlooked the valuable House of Lords report on silk of 1823, to which attention was called in this JOURNAL in 1916 (Vol. XXVI., p. 469), and the discussion of the whole question there, which bears on several of the points with which they deal. The retention of the Spitalfields system, though not so impossible as its critics suggested, would yet not have been so simple a matter as Mr. and Mrs. Hammond seem to imply.

The chapters on the North Country colliers hardly show so much knowledge of the whole economic setting of the labour problem as do the textile chapters. The short account of the famous selling agreement among masters, the "Newcastle Vend" (p. 24–5), for instance, takes no notice of the full discussion in Hermann Levy's *Monopole, Kartelle und Trusts*. But they contain a very full narrative of the relations of employers and employed for the whole period, with plenty of illustrations of opinion from both sides. The balance is fairly held, though perhaps not with such scrupulous fairness as in the wool chapters, where the authors' strong sympathies for one side never lead to the least misrepresentation of the other.

Brontë enthusiasts, if reference to such people is permissible here, will find in the chapter on the Yorkshire Luddites more personal detail about the defence of Mr. Moore's mill and everyone concerned in it than one could have believed to exist. The Home Office papers are a mine of information on such matters. As for Oliver the Spy, if his career had not been so discreditable to the rulers of England who employed him, one could enjoy it

unreservedly from its obscure start in Shropshire to its close in a Government job at Capetown.

J. H. CLAPHAM

Co-operation at Home and Abroad. By C. R. FAY. (P. S. King and Son. New Edition.)

THERE would probably be little difference of opinion among students of co-operation as to the value of Mr. Fay's *Co-operation at Home and Abroad.* With the exception of Mr. Cahill's official report on co-operation in Germany, which is too detailed and too much specialised for beginners, it is almost the only monograph on co-operation as a whole which could possibly be used as a text-book.

At the time when it was written it represented the first attempt of a trained economist, writing in the English language, to give co-operation its proper place in the field of economic science. It differed from the earlier work (excellent in its way) of such men as Messrs. Wolff and Holyoake in the fact that it was a dispassionate estimate rather than a piece of special pleading by an enthusiast, and that it dealt with co-operation as a form of organisation, and not as a particular method of advancing the interests of farmers on the one hand or urban consumers on the other.

In these circumstances we looked forward with keen satisfaction to the appearance of a new and revised edition of the book. Perhaps the very keenness of the anticipation makes disappointment inevitable, but we must frankly confess to a feeling of great disappointment. The co-operative world has undergone since 1908, not merely a tremendous quantitative change, but also a spiritual development, so to say, which has made many of the principles laid down in this book as fundamental subject to a considerable revision. We can well understand the cogency of the reasons, stated in the preface, which prevented Mr. Fay from attempting, under the pressure of more urgent work, a complete revision of his text. But, short of this, two things surely might have been done. In the first place the more important statistics might have been revised in footnote or appendix, and a few paragraphs added where the significance of any change in the figures seemed to call for explanation. Secondly, and this is of far more importance, some insertions might have been made in the text dealing with co-operation in the United Kingdom, which would have prepared the reader for the abrupt change of scene to which

he is introduced by the new chapter at the end of the book. This chapter is Mr. Fay's only concession to the demands of modernity; we are informed that the facts contained in it were largely collated by a pupil of his, Mr. Rashad, who visited the various centres. As a statement of fact it is in the main admirable, and the way in which the facts and figures have been condensed and epitomised deserves the highest praise. The point of which we complain is that the reader who has no detailed acquaintance with the developments which have taken place in the intervening years must necessarily find it almost impossible to reconcile statements in the original text with other summary statements on the same subject which are presented to him in the new chapter; and we feel that he has a right to expect that some explanation should be offered.

Failing this, a good deal of confusion is almost bound to arise. As a concrete illustration, take what is said on p. 105 as to the opposition of the I.A.O.S. to the policy of the "general purpose" society, and compare it with the reference to the progress of the same societies on p. 397. A complete change of attitude is shown, but the nature of the process which brought it about is hardly even hinted at. In the same way there is a reference on p. 105 to the "Agricultural Wholesale Supply Society." On p. 397 this body is referred to by its proper name, the "Irish Agricultural Wholesale Society." The discrepancy is small, but it is just these small discrepancies which perplex the student, and one cannot help feeling that careful attention to the revision of the text would have got over the difficulty. There is one serious mistake on p. 393–4, in the statement that when credit societies are registered under the Industrial and Provident Societies Act, they are prohibited from engaging in supply and sale—which is just the contrary of the facts.

Finally, we cannot help feeling it to be a pity that in the new chapter we are practically confined to a *résumé* of bare facts and figures without any particular estimate of values. The inevitable result is a certain lack of proportion, which is perhaps most clearly shown by the devotion of seven whole pages to the activities of the Women's Guild of the Co-operative Union.

None of this criticism must be taken as reflecting on the value of Mr. Fay's original work nor the desirability of republishing it. We can all feel that we welcome a second edition, but at the same time we are justified in feeling that we cannot let Mr. Fay rest content with the book now before us. We have still a claim against him to bring his work on this badly neglected subject

up to date, and we cannot accept the present tender in satisfaction of that claim. On the whole we could wish that he had contented himself with a simple re-issue (with a few necessary corrections) and had promised us an entirely new book on the subject at a later date.

Perhaps, however, it is not even now too late to hope for this.

LIONEL SMITH-GORDON

Immigration and Americanisation. Selected Readings. Compiled and Edited by PHILIP DAVIS. (Boston: Ginn and Co. 1920. Pp. xii+770.)

THIS volume is particularly designed to meet the needs of high schools, colleges, universities, and chautauquas (!) for a handbook on these twin subjects. It consists of articles and documents ranging from an Act of Congress to private letters of Polish peasants, and from a lecture delivered in 1853 to chapters which appear to have been written specially for publication in this work.

Part I., which relates to Immigration, begins with chapters on the history and causes of the movement, and proceeds to study successively the various sources from which immigrants have been drawn; the change which occurred during the twenty years before the war in the type of immigrant; the racial, economic, and social effects of immigration; and legislation dealing with the question. The reader has before him a mass of material bearing on many aspects of a subject of absorbing interest. During the three hundred years which have elapsed since the arrival of the Pilgrim Fathers, the country which is now the United States has, as we are reminded in a noteworthy paper by Professor Leon Marshall, experienced an inflow of three great sections of the human races —European, African, and Asiatic. The European movement has been largely voluntary, the African largely forced, and the Asiatic largely met by restriction. The methods adopted to check the immigration of Chinese and Japanese are interestingly described, and it is remarkable to learn that Japanese, Chinese, and other Eastern Asiatic subjects, *because neither white nor black*, are ineligible to become American citizens by process of naturalisation, while some of the Western Asiatics stand in the shadow of doubt. With negro immigration and the negro problem generally the book does not deal: no doubt the editor felt that the subject was too large to be taken up here. With regard to immigration from Europe, we read that since the formation of the Government and up to the year 1900, 22,000,000 people had come in,

of whom 7,500,000 were from the United Kingdom, over 5,000,000 from Germany, nearly 1,500,000 from Norway and Sweden, 2,500,000 each from Austria-Hungary and Italy, and 2,000,000 from Russia, including Poland. These figures indicate that even twenty years ago the white population of the United States contained a very substantial non-British element, though it still consisted predominantly of people of the Baltic races. For some years before the end of the nineteenth century a marked change had been noticeable in the sources from which immigrants were drawn, and the tendency became much more marked in the first fourteen years of the twentieth century. The chief sources from which immigrants were drawn moved increasingly to Southern and Eastern Europe. America was confronted with the problem of absorbing a huge stream of immigrants consisting mainly of Italians and various Slav races, alien in tongue and still more in traditions from the great bulk of those who had gone before. The effects of this immigration upon the racial composition of the American people seem likely to be entirely disproportionate to the number of immigrants, if we may judge by past experience as described in these pages. There seems to be no room for doubt that immigration has tended to check the rate of increase of the native-born population. General Walker claims that it is possible to demonstrate statistically that during certain periods immigration has caused the native-born American population to be smaller than it would otherwise have been by an amount almost exactly equal to the amount of immigration during these periods. It is to be noted, moreover, that newly-arrived immigrants and their immediate descendants are more prolific than the rest of the population, so that the older stocks have been rapidly going back in relative importance. It is not clear whether some of them may not be diminishing absolutely.

The future course of immigration into America is wrapped in uncertainty, depending as it does, not only on conditions in Europe, but also on the willingness of the United States to accept those who may wish to immigrate. Restrictive legislation tends to become more and more severe. The Immigration Law of 1917, which codifies and extends previous legislation on the subject, lays down for the first time a literacy test, providing, with important exceptions, that all aliens over sixteen years of age, physically capable of reading, who cannot read the English language, or some other language or dialect (including Hebrew or Yiddish), are to be excluded from admission into the United States. It may be expected that this test will chiefly affect the stream of

immigration from Eastern and South-Eastern Europe. Unless post-war immigration from those parts of Europe is absolutely and relatively to other streams very much less than before the war, it is difficult to see how the racial composition of the American people can remain much longer even substantially Baltic. It will be a mixture of almost every European race, no doubt speaking in the main the English language and accepting institutions in the main of Anglo-Saxon origin. The pages of this book, though they do not attempt to make any forecast, contain interesting discussions on the racial and social effects of immigration on which it would be tempting to enlarge were space available. We could have wished, however, that the editor had seen fit to enable us to dig rather more deeply into the statistical evidence; as it is the reader cannot but feel at many points that he is required to take a good deal on trust.

Book II. deals specially with the various problems connected with Americanisation. We are given an insight into some of the Governmental and other machinery for dealing with aliens (*e.g.*, the California Immigration Commission) and for educating them to be American citizens. There is an interesting chapter on the distribution of immigrants, in which it is concluded that the congestion of the foreign-born in the large cities, particularly the seaboard cities, is in no sense an evidence that the arrivals linger or stagnate there. "On the contrary, the foreign-born population of the United States is in a process of incessant and most rapid immigration over the face of the country, following the allurements of economic advantages and opportunities as they present themselves." Generally speaking, we get the impression that the process of assimilating immigrants is remarkably rapid, and that the American-born children of the immigrants grow up thoroughly American. It is not, however, made clear at what rate the process of actual race mixture is going on. It is, moreover, a matter for regret that, though published in 1920, this is practically a pre-war book in that the effects of the war upon the process of Americanisation and on immigration are barely referred to. We glean merely incidentally that the war has acted upon the American international communities like the wrong kind of acid dropped into a solution, and that it has started a reverse action by resharpening nationalistic prides.

Generally, this book possesses the virtues, as well as the defects, of a selected collection of readings. On the one hand, a considerable amount of useful matter is rendered available, which deals from many points of view with the principal features of the

subject. On the other hand, the chapters are of unequal merit, are apt to overlap, and fail to give that clear impression which results from unity of design and unity of authorship. The usefulness of the work is increased by the inclusion of a comprehensive bibliography. C. K. HOBSON

Free Trade, The Tariff and Reciprocity, by F. W. TAUSSIG, Ph.D., Litt.D., Henry Lee Professor of Economics in Harvard University; sometime Chairman of the United States Tariff Commission. (New York: The Macmillan Company, 1920. 8vo. Pp. 219).

WHOSO will be wise in the policy of Customs duties let him ponder the writings of Professor Taussig. Historian of the United States Tariff, ex-Chairman of the Massachusetts Tax Commission and of the United States Tariff Commission, he has studied the facts from the life and is as full of matter as an egg is of meat. Add a mastery of theory, a power of lucid exposition, and a balanced but decisive judgment, and we have all the requisites of a good guide. The publisher's announcement on the cover of the present volume that "the war has rendered virtually obsolete all earlier discussions of the Tariff" is not a felicitous recommendation of eleven reprinted articles, for the most part published before the war, one of them reproduced "without change from the *Quarterly Journal of Economics* for October, 1892." So far from being virtually obsolete the articles set time at defiance. The strong salt of realism preserves them from decay.

The author "would not have the reader infer that he is an unqualified Free Trader," but he says the same thing of Adam Smith with whom he is in very good company as a "qualified" Free Trader in the sense in which we speak of a qualified professional man. His reservations are cold comfort for the Protectionist. "The case in favour of free trade has indeed always seemed to me *primâ facie* strong; and prolonged investigation and reflection have served to confirm me in this opinion. There may be offsetting advantages which rebut the presumption . . . The young industries argument seems to me still to point to some possibilities of ultimate gain. Again, there are political and social arguments as to the avoidance of extremes and of undue fluctuations in industry." But the practical conclusion is in favour of pruning the American protectionist system, of a gradual movement to lower duties, and of the abolition of such duties as cannot justify their continuance. We doubt whether much protection in the

United States of to-day would survive the acid test last suggested.

The Free Trader will find in these articles an arsenal of facts in condemnation of particular forms of protection, and will be gladdened by the scathing and destructive analysis of "scientific tariffs" based upon costs of production. The essay, "How Tariffs Should not be Made," is a useful warning to politicians, and the discussion of Tariff Commissions and what can or cannot be expected of them derives peculiar force from the author's experience. A good example of Professor Taussig's skill in historical investigation is afforded by his research into the authenticity of the phrase attributed to Abraham Lincoln: "When we buy manufactured goods abroad we get the goods and the foreigner gets the money. When we buy the manufactured goods at home, we get both the goods and the money." The Professor tracks down the birth of the phrase to 1894 and shows that it originated with R. G. Ingersoll. "The economist," he says, "breathes a sigh of relief on finding that Lincoln's great name cannot be associated with it"—a view more bluntly expressed by my old friend Horace White when, some years ago, he wrote to the *New York Evening Post* "My reason for thinking that Lincoln never said this is that he was not a fool."

The reader will turn with interest to the last article in the book, "Tariff Problems after the War," but will find in it nothing beyond the views current and dominant in economic circles here. The old absolute Free Trader who would not admit that there are or can be any circumstances which justify even a temporary departure from Free Trade was almost extinct before the War. Most things in this world are relative. The feeling of relativity in Free Trade is strong in some economists and weak in others, but so long as their minds are open to consider judicially and scientifically the pros and cons of a particular case in fulness of detail, they are in keeping with the attitude of Professor Taussig.

HENRY HIGGS

Effects of the War on Money, Credit and Banking in France and the United States. By B. M. ANDERSON, Jun., Ph.D. (New York: Oxford University Press. 1919.)

THIS book is one of a series of preliminary economic studies of the war for which the Economics and History Division of the Carnegie Endowment for International Peace is primarily responsible. Professor Anderson completed his work in the autumn of 1918, so that the survey does not cover quite the whole

of the war period. This in itself is unfortunate, and the date of completion has proved a considerable disadvantage to the author in other respects. If he had written the book to-day, he would have had possession of many additional facts, and he would not have found it necessary to exercise so much reserve in the expression of his views. Nevertheless, the volume is a very valuable one. Professor Anderson has supplied us with a great deal of information which is not easily obtainable elsewhere, and his interpretations of the facts which he records are always interesting. It is a distinct advantage to the general reader that very little space is devoted to the discussion of pure theory, though the omission will disappoint those who wish to understand how Professor Anderson reconciles his views with regard to the quantity theory with the events of the war period.

The chapter on the currency and banking system of France before the war is chiefly interesting on account of the attack made upon the view that notes constitute the chief medium of payments in that country. "That notes and coins are used in the major number of transactions is doubtless true. It would probably be true in the United States. But that notes and coins are used in making the major part, in pecuniary magnitude, of the payments in France is probably untrue." This criticism is doubtless well founded, and it shows how important it is that in France, as elsewhere, we should direct our attention to changes in the volume of all forms of currency, not merely to the size of the note issues.

On the whole, Professor Anderson is optimistic about the future of France. He does not seem to consider that her war debt will cause any serious risk of insolvency, and he even contemplates the possibility of a resumption of specie payments at the old legal rate within a comparatively short period. It is impossible to feel very confident that these hopes will be realised. Indeed, many of the best authorities are now of the opinion that France must inevitably default upon, or be forgiven, much of her foreign debt, and that she must resign herself to stabilising exchange on the basis of a new franc with a much reduced legal gold value.

There is a good deal of justification for Professor Anderson's criticism of the gold policy of the Bank of France on the ground that it has lacked courage. Indeed, his criticism might well have been extended to a wider field. The whole financial policy of the French Government has been singularly lacking in courage and correspondingly damaging to the country's credit.

The space devoted to the history of the war finance of the United States is relatively small. This is disappointing. The United States of necessity played a very large part in the arrangement of the international financial transactions of the war period, and even American readers would have been interested in a full account of them. It is true that many of the most important facts are still unknown to those outside the walls of Government offices, but it would have been possible to collect a great deal of interesting information from the Press of neutral countries. Professor Anderson's discussion of the foreign trade and foreign exchanges of the United States suffers very much from lack of knowledge of the facts. It is impossible to reconcile his chart of the exchange rates in neutral countries with his opinion that "the improvement in dollar, sterling, and franc exchange in the neutral markets has been chiefly due to the efforts of Generals Foch, Haig, and Pershing, rather than to the financial measures of those who have sought to substitute indirect measures for the direct shipment of gold." Nor, to take a particular case, is it correct to attribute the recovery of the Allied currencies in Madrid during the summer of 1918 to the defeat of the German armies in France. A glance at the chart already referred to will show that the recovery started months before that defeat, when the military position of the Allies was very far from being satisfactory. In truth, in this particular case of Spain, as in the case of other neutral countries, the financial measures of the Governments concerned played a very big part in the movements of exchange rates. Moreover, the success of the Allied financial negotiations really depended much more upon the strength of the Allied economic position than upon the military position. At a comparatively early stage of the war Spanish iron ore became almost indispensable to the Allies, if the war was to be continued. At the same time Spain could hardly exist unless she sold the ore. In the winter of 1917/1918 the Argentine wheat crop became indispensable to the Allies. Critical situations such as these were frequently overcome by combined financial and commercial agreements, and the conclusion of these agreements usually reduced the strain on the exchanges, or even turned them in favour of the Allies. In certain cases failure to conclude an agreement would have produced, not merely an adverse exchange, but inability to obtain exchange at all. If Professor Anderson could obtain the facts and would write a history of these international negotiations, he would throw fresh and most interesting light upon some of the most important incidents of the war.

OSWALD T. FALK

War Thrift. Government Control of the Liquor Business in Great Britain and the United States. By THOMAS NIXON CARVER. (New York: Oxford University Press. Pp. 68, 192.)

BOTH these studies are written with special reference to recent war conditions. As in the Essay on the "Foundations of National Prosperity," Professor Carver condemns the waste and loss caused to the community by anyone—whether labourer or captain of industry—who, after a certain point is reached, prefers leisure to remunerative exertion. The desire for luxuries stimulates to further efforts, and so far is useful. A nation which expends its surplus energy on the production of luxuries is also better equipped in times of crisis than one whose people cease their labours as soon as the necessities of life have been secured. But this advantage lies in the existence of a surplus of energy, and depends absolutely on the willingness of the people to cut off the luxury and divert their liberated energies to useful production.

As regards Government control of industry in war time, the writer holds that Government decree conferring "priority," according to its lights, is a singularly clumsy and unscientific method of dealing with the problem. He suggests that the consumer rather than the producer should be reached, and proposes the heroic expedient of increasing our income tax until we are forced to cut down consumption to essentials. If private persons had, either from inclination or necessity, reduced their demand for commodities in the same ratio in which the Government increased its call for labour and materials, there would have been no total increase of purchases and no inflation of prices. Government borrowing is much less effective, since many lenders use their holding of Government Stock as a basis for obtaining credit, and spend as much as before. The essay concludes with a vigorous appeal for thrift in the public interest.

The greater part of the monograph on the Liquor Traffic deals with the war experiences of Great Britain, from which the writer expected that the United States might learn useful lessons. Given Professor Carver's views on the conservation of resources —natural and human—it was to be expected that he would regard the production and consumption of alcohol in war time as nothing less than a sin against the life of the community. Drunkenness on the part of officers is the cause of irreparable blunders; on the part of soldiers and sailors, it means loss of dependability; among civilians, impaired efficiency and diminished output. The amount

of foodstuffs actually diverted to the production of alcohol is considerable. The contention that alcoholic drinks possess food value cannot be taken seriously, since even its supporters are not willing to reduce their other food rations in proportion to the alleged food value of their drinks. The value of the liquor traffic to the revenue is disposed of just as briefly. The buying of alcoholic drinks does not create new wealth, and the revenue might just as well be levied by a tax on any other product or purchase.

The restrictive measures adopted by Great Britain during the war are discussed in detail, the text of the various Acts and Orders in Council are quoted in full, and their effects described. However effective legislation might be, the writer points out that the "demagogic" aspect of the situation cannot be ignored. A great war is as much a demagogic as it is a military or an economic problem. This was never overlooked by the British authorities, whose line of action was always gradual and apologetic, the effort being always "to go as far as it was felt safe to go." The writer does not actually blame the authorities for timidity, though he is clearly of the opinion that a great opportunity has not been exploited to the full. In describing the American situation, he lays stress on the difference between the British and American problems, and traces this to differences of temperament and climate. The tendency towards excessive drinking he declares to be much stronger in America than in Europe. This has provided its own antidote in the form of a positive and uncompromising hostility towards drink in all its forms. The tendency of the majority is to look upon all drinking with abhorrence, and for at least forty years before the war, America inclined towards prohibition rather than control. The writer describes the drastic steps taken to deal with the war situation, culminating in the Prohibition Amendment. As this, however, had not yet been put into effect, there was nothing definite to discuss in the way of results. Professor Carver is clearly anxious to be impartial, but, beyond describing the demagogic aspect of the problem, he gives us no suggestion of a policy for dealing with it. The case for temperance reform can always be stated with the most compelling force and lucidity. The difficulty comes when emotional abhorrence, on the one side, has to find a practical mode of dealing with the more powerful, and unfortunately more widespread, emotions on the other side.

H. REYNARD

Il Problema delle Finanze Post-Bellica. By LUIGI EINAUDI. (Milan: Fratelli Treves. 1919.)

THIS volume consists of five lectures delivered at the Università Bocconi, Milan, in March 1919, which are general elementary discussions on the taxation problems occasioned by the war, with considerations as to the possible future ways of meeting the interest charges on the Italian national debt. The comments contained on Italian legislative and administrative difficulties, both inherent and future, are the main interest.

As the lectures were delivered nearly eighteen months ago, they suffer somewhat the fate of all topical discussions, but the chief factor of war debts remains constant and indeed, in the case of Italy, has become accentuated.

Professor Einaudi, confining himself to fiscal problems and excluding currency questions, is occupied in ascertaining in what way the interest on 60 milliards of *lire* debt and the standing government expenses are to be covered. The interest charges he reckons at three milliards per annum.

The problem of taxation in Italy is clearly twofold. There is, in the first place, the system of taxation to be adopted and, secondly, the practical application necessary to secure the success of the operations. Italy is so richly endowed with sound theorists such as Prof. Einaudi that there should be no more difficulty in the future than there has been in the past in formulating sane schemes of taxation, but the real obstacle, as peeps out in the lectures on more than one occasion, lies in the task of administration. Post-war national finance can only be faced with the help of drastic taxation, such as income tax, E.P.D. and capital levies, in other words by heavy direct taxation for which the Latin countries, both by character and temperament, are little inclined. The problem of the hour in Italy is not so much the nature of the taxation to be imposed as the difficulty of collecting whatever taxes are decided upon.

It is with this difficulty in mind that in his first lecture, Prof. Einaudi has words of censure for the administrators of Italy between the years 1900 and 1912. The healthy state of the country in that period would have allowed radical reforms in the contributory system. Instead, Italy began the war with no inventory of income or capital. Such statistics as there were showed the total taxable incomes in Italy to exceed little more than a milliard a year. The figure was the ludicrous but natural result of a government with no powers or system of investigation and without

access to the books of the trading community. It has to be remembered also that Italy has no institute of chartered accountants.

The state of affairs has, however, been considerably improved by the strength and determination with which the government has tackled the question of war profits and the innovations introduced constitute what he declares to be the greatest administrative benefit that Italy has derived from the war. It is now a question of grafting the E.P.D. machinery on to the permanent fiscal system and of elaborating some method of ascertaining the pre-war wealth of individuals, without which no satisfactory way will be found of raising by direct taxation either the three milliards of annual interest charges or reducing the National Debt, which now considerably exceeds the 60 milliards estimated by the lecturer.

The lectures were delivered at the moment when the Meda project was launched. Cabinet changes caused this to be superseded by the proposed Schanzer "Financial Omnibus" of November, 1919, in turn altered by Sig. Luzzatti this year and still in abeyance pending the views of his successor.

Private wealth in Italy, Prof. Einaudi estimates, with what is now perhaps too modest an allowance for the rise in prices, at 160 milliards. A levy on capital, he maintains, would be easier in an industrial country, such as Great Britain, than in agricultural Italy. Whilst English critics assert that the reduction of the national debt might give place to other extravagances on the part of the Government, such fears, he maintains, are not warranted to the same degree in Italy. Great Britain has already covered her interest charges to a great extent by direct taxation, whereas Italy has still to find the means of meeting her liabilities. In the latter case, it is a choice of two evils, but nevertheless he pronounces neither for nor against the levy. He fears that if the levy takes the form of annual payments such sums will tempt the Government to employ the proceeds to other ends. The effect also on future saving causes him anxiety. "That which is above all important for the future is not the existing capital, but that which has to be created and which will accumulate by degrees. Existing capital does not disappear by such extraordinary taxation, houses, land and works are not destroyed. Only the proprietary title passes from certain individuals to the State, which in turn cedes the title to other private individuals who surrender their public debt certificates in exchange" (page 136).

The Italian tax collector is faced with the difficulty of bearer

bonds, which predominate to the virtual extinction of registered stock. The Schanzer scheme proposes the extermination of such bonds by heavier taxation than that imposed on inscribed holdings. Prof. Einaudi does not allude to any such method of forced extinction, and considers no other solution than the payment of interest less tax with the onus of recovery devolving on holders with small incomes. The abolition of bearer bonds, he maintains, can only be the outcome of international agreements. The disappearance of this form of certificate would certainly give greater stability to the Italian stock market and violent speculations on the approach of annual meetings, such as occurred this spring in the case of the Banca Commerciale, would be avoided.

Other suggestions for the future taxation are more constructive. Prof. Einaudi would institute special taxes on profits accruing to those firms which have the privilege of Government contracts to the exclusion of foreign rivals. The same theory he would apply to all firms enjoying trading concessions, as is already admitted in the case of the note-issuing institutions, whereby the state participates in any profits exceeding five or six per cent. The lectures were given when the fever of Consortia under Government auspices was at its height. These were formed, and to some extent are still in being, to liquidate existing supplies. Prof. Einaudi condemns them most justly as being vicious in their tendency to maintain prices and to cover up the delinquencies of the Government. Their profits also he would tax.

The only novelty in indirect taxation suggested is the excise on wine. The lecturer maintains that the industry would actually benefit by a tax paid at the source. Growers having to anticipate large sums to the Government would require large capital and would, therefore, have to be stronger financially, whilst the production of inferior wines with low alcoholic density would decline and the general quality of the output be improved. The absence of low-quality wine would stabilise prices and prevent heavy falls in years of crisis, whilst land now producing poor wine would be turned automatically to the production of grain. One is tempted to doubt whether the placing of wine production on the same basis as sugar would really be a benefit to the country: the estimated yield of 500 millions is, however, not to be despised. One further doubt is permissible, and that as to the extent to which Prof. Einaudi would have us believe that the income tax in England is avoided by the subterfuge of fictitious recipients.

There is a noteworthy misprint on page 140, where Pitt is proclaimed Prime Minister in 1912. W. H. HASLAM

The Physiology of Credit and Money. By OSWALD ST. CLAIR. (P. S. King and Son, Ltd. Pp. 170.)

THIS little book contains matter of interest, as an attempt to explain the working of the money and credit system. It appears open to criticism, however, as failing to make clear the connection between alterations in the volume of credit and in the volume of income. The author insists that credit does not raise prices, that the aggregate of value of goods sold in the retail market is limited by the aggregate of income, and that wholesale dealings can only vary the distribution of profits between the parties, without adding to the total. An increase in the level of prices appears to be regarded as due to the direct spending of new gold (or legal tender money). The author's illustrative physical analogies and diagrams are useful up to a point, but he does not appear to admit all the logical conclusions of his own argument. On p. 121, for instance, the sentence: "The aggregate price realised by all the goods sold at R will not exceed the aggregate income of the people," like many other sentences, seems to ignore the fact that that income is not given as a fixed thing. If credits are expanded, the income stream also is expanded. If dealers make more profits, that, for them, is income. If a manufacturer gets a credit and buys goods and pays wages, that credit goes into somebody's income stream, and if the credits are being created faster than they mature, the income stream swells. An increase of gold or legal tender notes counts for far more than its mere numerical total as an addition to the aggregate of "money," because it can be made the basis of a much larger total of increase of credit. It is suggested that this point should be dealt with, even though, for the purpose of preliminary explanation, it is doubtless simpler to explain the working of credit on the assumption that credits created are not, for the time being, exceeding those maturing.

C. F. BICKERDIKE

The State Debt and the National Capital. (Methuen. Pp. 78.)

THE anonymous author of this little book propounds a novel and ingenious scheme, or, rather, a principle capable of being worked out in many alternative schemes, for dealing with the national debt. The proposal starts from recognition of the fact that any successful system of paying off the debt must have the effect of lowering the rate of interest generally, and will therefore raise the market value of securities. Holders of securities and

of property generally will therefore benefit by this enhancing of values, and for that reason they may reasonably be called upon to shoulder the main burden of redemption. Instead of a capital levy, however, what is proposed is a compulsory special levy on income from capital (the definition of "unearned" income requiring, perhaps, to be more scientifically made than it is at present), the levy to be made, it is suggested, each year for twenty-five years, at the rate of 5s. in the £1. It is proposed, however, that this should not be a pure levy, but that new State bonds should be issued to the payer of the nominal value of £100 for every £100 of levy paid, but bearing $2\frac{1}{2}$ per cent. interest (the actual rate might be more, or even less, but $2\frac{1}{2}$ per cent. is taken for illustration). The author calculates that this new bond, which would be redeemable at par, would have a market value to start with of about £60, in view of the prospect of its ultimate redemption at par, so that the burden imposed would be really £40 instead of £100, and against this there is the further consideration that the amount of taxation which would otherwise be required for a sinking fund would be remitted. It is estimated that a debt of 7,500 million at 5 per cent. would be replaced, in twenty-five years, by one of 5,000 million at $2\frac{1}{2}$ per cent., and that the capital value of the $2\frac{1}{2}$ per cent. bonds would by then be somewhere near £100. The substantial economic argument for the scheme is that it would increase considerably the volume of real savings. If the State merely took £40 from a taxpayer he might or might not save some of the rest of his income, but if £100 is taken, and a bond worth £60 given in return, the chances are that most people would not sell the bond to spend the money. Business people might borrow on it for business purposes, but it is contended, with good reason probably, that there would be an increase of savings, and it is therefore not necessarily fallacious to contend that in the long run the property-owners who paid the levy would not be worse off, excepting for loss of interest, and the nation as a whole would gain by the increase in the volume of real capital. The debt of £5,000 million at $2\frac{1}{2}$ per cent. which would remain at the end of twenty-five years would be lightly borne.

The actual figures and detailed calculations would require revision in the light of more recent knowledge, and need not be referred to here. The further proposal, however, that increments of capital value other than that of the war loans should be taxed, seems hardly fair. The unfortunate holder of consols which had been bought before the war may well contend that if the value rises again in the course of years, he is only getting a very belated

return for the sacrifice he has already suffered in having the purchasing power of his income halved for many years, in addition to having to pay his quota of the proposed levy.

As a method of dealing with the permanent debt, the scheme is well worthy of consideration, and the pros and cons might be argued out a little more fully. The book will not be found easy reading. In particular, the working of the "anticipatory" scheme is not easily followed. One would also like to be convinced that the levy would not be just as liable to be "raided" as an ordinary sinking fund. Suppose, as is sure to be the case, that the Government requires to borrow additional money for various purposes, are they to be expected to go on paying off the old debt under this scheme, and simultaneously creating another debt at the current rate of interest? One rather suspects that long before the twenty-five years had run, other uses would be found for the money produced by the levy. At present, however, and for some years to come, the floating debt is the problem, and the scheme is capable of being adapted to meet this problem by increasing the rate of interest given on the bonds, and increasing also the amount of the levy. The £200 millions per annum contemplated in the model scheme propounded in the book would not give a sufficiently rapid repayment of the floating debt.

In conclusion, one must express thanks to the author for a very suggestive and acute exposition of the problem.

C. F. BICKERDIKE

Économie Industrielle et Sociale. Par LAURENT DECHESNE. (Liége: Joseph Wykmans. Pp. 105.)

Économie Coloniale. Par LAURENT DECHESNE. (Liége: Joseph Wykmans. Pp. 88.)

Économie Géographique. Par LAURENT DECHESNE. (Liége: Joseph Wykmans. Pp. 287.)

Économie Coloniale. Par LAURENT DECHESNE. (Liége: Joseph Wykmans. Pp. 237.)

IN these four volumes Dr. Laurent Dechesne covers practically the whole of the ground of what he terms applied economics. By far the greater part of his space is occupied with descriptive economics; in the two first volumes there is also a certain modicum of economic theory. The four books, however, do not claim to be treatises in any sense of the word, but merely compilations in the form of brief notes for the use of students, and we can

well imagine that students will find them of assistance, especially for purposes of revision. What has struck us most in the series as a whole is their completeness. Practically every economic aspect of industry, commerce, geography, and colonisation is touched upon. In preparing these volumes Dr. Dechesne claims that he has been guided by long years of experience in teaching economics at a college of commerce, and, looking at these books from the point of view of a student preparing for examinations, we are bound to say that the author's experience must have been comprehensive. The subject-matter is divided up into numbered paragraphs; the text is accompanied by diagrams, graphs, and maps; but we fear we cannot praise the illustrations, which are not large enough or clear enough, in the majority of cases, to be of much use. Each volume is also supplied with a good working index, and what the student will possibly find most useful is the bibliography at the end of each section. It is of interest to note that after the reference books on capital Dr. Dechesne informs his readers that the greater part of the books on capital are not in French.

M. EPSTEIN

Introduction to Economics. By PROFESSOR JOHN ROSCOE TURNER, PH.D. (London: George Allen and Unwin. 1919. Pp. xvi+641. Price 15*s*. net.)

Elementary Economics. By PROFESSOR FRANK TRACY CARLTON, PH.D. (New York: The Macmillan Company. 1920. Pp. 209.)

FROM authors in the United States come two additions to the now considerable numbers of single-volume text-books for the unlearned. Professor Turner, believing that economic institutions can only be adequately comprehended in the light of their historical development, introduces his subject by four chapters which hurry us from the primitive huntsman *viâ* slavery, guilds, and the industrial revolution to present-day industrialism. The basis of our existing economic order he sees in the institution of private property—a dangerous foundation for an autocratic society, but safe enough for a democracy; for Professor Turner optimistically holds that the characteristic feature of democratic government is "unselfishness and the rule of common-sense," To the psychological feelings about our private property and the embarrassing limitation of Nature's bounty, which give rise to the problems of value and price, Professor Turner devotes a considerable part of his book. It seems a pity that he has decided to

introduce a revised terminology into his discussion of the theory of value. Terminology is the weakest part of theoretical economics, and we do not want it still further weakened. Least of all is it kind, in a volume which professes only "to prepare the mind of the student for the study of more advanced and specialised works," to use terms in a sense wholly inconsistent with that which the student will find elsewhere accorded to them. No one can object to Professor Turner substituting "desirability" for "utility," or the "Law of Proportionality" for our undeniably absurd "diminishing returns." But it is confusing to learn that value is a purely individualistic matter, by no means necessarily coincident with power in exchange, for which the term "price" is reserved. And when the author comes to discuss the functions of money as a standard of value, or the labour-cost theory of value, he is confronted with the ordinary use of the words; and confusion becomes worse confounded.

The most useful parts of the book will probably be found to be the chapters on money and banking, and a brief discussion of the principles of population which has the merit—a great one in the treatment of a burning issue—of being wholly inconclusive. Anyone who wants to know what money is and ought to be (Professor Turner says that *inter alia* money ought to be beautiful), how its purchasing-power is determined and measured, what a bank is and does, will find these things explained in Professor Turner's book in a way which relieves the student of the too frequent necessity of digging for home-truths under a mass of obscurantist technicalities.

The book shows how the national dividend is shared out by the various factors of production. The chapters on distribution have not, however, anything to say on the wider problem of explaining the existence of haves and have-nots, and their relative numbers. The key to the discussion of rent and interest is the author's desire to expose the folly of elaborating a separate theory of rent. Here he is surely knocking at open doors. Intelligently interpreted, the statement to which he objects—that rent is not an element in cost—only means what Professor Turner himself says—that the payment made for the use of a rent-bearing agent is governed by the anticipated value of the services it will render, rather than by the pain and grief which the owner of the agent endured in its creation. Interest Professor Turner holds to be based on a preference (called a "time-discount") for a bird in the hand over a bird in the bush. The common views that the rate of interest is determined either by the rate of productivity of capital, or by the supply of loanable money on the market, are

dismissed as "two of the most persistent fallacies in economics." But will not the rate of productivity of capital affect the "time-discount" of borrowers? And is not the statement that the rate of interest is governed by the supply of loanable money only a way (though a slovenly way, to be sure) of saying that the scarcity of accumulated wealth is an essential reason why a payment should be made for its use? The refutation of these "fallacies" (with which we may compare the pains the author takes to show that cost of production does not govern price) makes the argument sometimes rather difficult for the purposes of an introduction.

Professor Turner says of his book that it is an "outgrowth of class-room discussions." It bears the marks of not having entirely outgrown this genesis. Though enlivened by many anecdotes, the book reads rather like a lecturer's notes. For this reason it will probably be of more use to the teacher than to the student.

Professor Carlton's book is plainly designed to be a first reader. The principle on which the author has acted has evidently been that it is better to tell the beginner a little about everything rather than to rub only a few important matters well in. To carry this out in two hundred pages means to attain a very high degree of condensation. It means also to some extent to sacrifice readableness to completeness. Beginning with a survey of the business of getting a living as evolved by mankind in general and the United States in particular, Professor Carlton leads us on to a discussion of fundamental economic concepts. Under this heading he covers that large part of economics which consists of propositions that all of us might have, but very few of us have, thought of for ourselves. Throughout the author follows established lines and follows them clearly; and his abstract discussions have the great merit of being backed up by concrete facts adduced from the country in which he is writing. From fundamental concepts Professor Carlton turns to economic problems, to which he devotes more than half his book. He has several admirable chapters on Labour, its payment, its organisation, and its unrest; and he includes, what such text-books too often omit, a few words on agricultural economics. Least satisfactory is, perhaps, the chapter on money and banking. Could we not have been told something about the laws which control the vicissitudes of the general price-level?

There is one curious omission from both these books. On the commerce of nations, the principles by which it is regulated, and the provokingly intricate mechanism by which it is financed,

both are dumb. In works published at this juncture in the world's history one would have expected to see some notice of matters so fundamental.

BARBARA WOOTTON

Social Economics. By J. HARRY JONES, M.A., Professor of Economics in the University of Leeds. (London: Methuen and Co. Pp. x+239. 1920. 6*s*. net.)

PROFESSOR JONES deserves all gratitude for having given us a book wherewith to silence our importunate friends who want to know "what economics is about" or "why things are so dear." The book is, alas! "full of omissions," as its author says in his preface. But that, in a volume of the kind, is a fault on the right side. The author lucidly describes our existing industrial organisation. Specially interesting is his discussion of the localisation of industry and the prospect, after which he sighs, that it may yet become comparatively delocalised. He tells us what the joint-stock company does for industry and how it does it, what is the good of speculation, and why we ought to be thankful for insurance. The section on banking and currency, while admirably lucid, perhaps treats the latter too much as a handmaid of the former. Turning to the other side of the industrial picture, Professor Jones describes the essentials of Labour organisation and the most prominent Labour problems—craft *versus* industrial unionism, methods of industrial remuneration, and the problem of apprenticeship. A chapter on "The System before the War" devotes a curiously large amount of attention to explaining why women's wages were so low in pre-war days. On to this pre-war system, with its theoretical competition and its incipient unrest (largely traceable to the rising cost of living), burst the war; and there followed shortage, with her daughters, price-control and rationing, and all the problems of inflation, dilution, and chaotic wages. Professor Jones makes the interesting point that, if we had not inflated our currency during the war, we should have had to do so now in order to put ourselves on all fours with the rest of the world. In his discussion of the exchanges he might advantageously have made it clearer that our currency is cheapened, not merely by the reduction of the demand for it consequent on the comparative failure of our exports, but also by its unfortunate plentifulness. On the subject of what is to happen now that the war is over, Professor Jones does not take us very much "forrarder." But he discusses such themes as the control of industry in a manner both unprejudiced and non-

academic. And, after all, the first essential for getting "forrarder" is to know exactly where you are at present.

The book contains a few inaccuracies and misprints. The statement on page 105 that "most profit-sharing and co-partnership schemes either provide that the share of the individual workers shall be reinvested in the firm or merely offer capital shares to the workers on favourable terms" is not borne out by the recent Government Report on Profit-sharing (Cmd. 544). On page 150 the gold pound, instead of the Bradbury, is described as sterling. Twice (page 11 and page 77) 1824 appears as the date of the final repeal of the Combination Laws; which, in view of the second thoughts of Parliament in the following year, is scarcely accurate. On page 137 "time" is apparently written for "true"; and on page 198 national kitchens appear under the delightful euphemism of "natural kitchens."

BARBARA WOOTTON

An Introduction to the Industrial History of England. By ABBOTT PAYSON USHER, Ph.D., Assistant Professor of Economics, Cornell University. (Houghton Mifflin Company. 1920. Pp. xix + 530.)

PROFESSOR USHER has rendered good service to the cause of English economic history by writing, in one volume, a compact outline which is not above the capacity of those who are beginning the subject at the university. It is rather more advanced than Townsend-Warner's *Landmarks* and very much better than the latter on the industrial aspect of the eighteenth and nineteenth centuries.

Dr. Usher opens with a survey of structure on the lines of Professor Unwin. He then lays a broad foundation in two chapters on craft life in antiquity and mediæval France. When he comes to his English narrative he is faced with the difficulty of all writers on mediæval economic history, namely, the obscurity of the facts and the conflicting interpretations given by well-known writers. These controversies are very barren unless accompanied by exact reference to authorities, the date at which the theory was put forward, and so on. Their discussion is therefore hardly in place in an elementary book. It gives rise to that most arid type of mental gymnastics—the weighing of pros and cons by students who barely know the names of the disputants, still less the sources on which their views are based. In an elementary work, we submit, the writer should present his tale, illustrating it by occasional references to authorities, and let it

stand for what it is worth. Thus the essentials of manorial farming, the life and workmanship of the crafts are more important than the legal origin of the manor or the relation between gild merchant and craft merchant.

When we come to Chapter X.—"The Industrial Revolution"—Dr. Usher is first-rate. In Chapter XI. he shows how seafaring was the basis of England's industrial strength; how the East India Company traded in cottons, buying them from India and selling them in the Spice Islands; how cottons in this way reached England; how we first tried our hand on the finishing stages, printing calico, weaving cotton yarns with home materials; how finally we established the cotton industry in Lancashire, where it has since remained on the strong triple foundation of (*a*) humid climate, (*b*) adjacent coal supply for power, and (*c*) accessibility *viâ* the port of Liverpool to the great cotton-growing area of the U.S.A. Chapter XIII.—"The Reorganisation of the Metal Trades"—is even better. The student can really understand what the Darbys did for iron smelting; what Cort did in his puddling furnace; how Watt's steam engine was evolved; and the revolutionary change effected by Sir Henry Bessemer, when he made possible the mass-production of steel. In Chapters XVII. and XVIII. Dr. Usher is again on congenial soil ("The Development of Railways"), and, like every American, he knows how to write a sketch of combination and monopolies. Interspersed with these are some "social" chapters, which are accurate, but disjointed, and do not glow. Thus, in the last chapter, "Incomes, Wages, and Social Unrest," we have Dr. Bowley's wage estimates, a scrappy section on Chartism—rather out of place at this stage of the book; *after* Chartism a paragraph on the Dorsetshire labourers; and within eight pages some remarks on the Osborne judgment.

It is unfair to make this a matter of reproach to the author. We are but indicating the extreme difficulty of bringing all aspects of economics together in a compact narrative in due proportion. Dr. Usher's maps, charts, and index are excellent.

C. R. FAY

India at the Death of Akbar: An Economic Study. By W. H. MORELAND. (Macmillan and Co. Price 12*s*. 6*d*.)

MR. MORELAND'S forte has hitherto been land revenue administration. His lectures to young officials in the United Provinces when he was Director of Land Records and Agriculture

are well known, while his *Revenue Administration of the United Provinces* and his *Agriculture of the United Provinces* show a capital grasp of a very technical subject. His paper in the *Journal of the United Provinces Historical Society* on "The Agricultural Statistics of Akbar's Empire," and that in the *Journal of the Royal Asiatic Society* on "The Value of Money at the Court of Akbar" are familiar to many students of Indian economic history. None of these works, however, can challenge in authority or in scholarly research "India at the Death of Akbar." This is his *magnum opus*, the fruits of a well-employed retirement.

The book opens with an account of the country and people about the year 1595. We are reminded that the Portuguese and some travellers of other nations who visited India at the zenith of Portuguese influence used "India" to mean the west coast and the land lying behind it, and not in the sense which the author uses—modern India, excluding Burma. We have a picture of the administration, the court, the civil service, and the various occupied classes. We see the faulty production of the period and the still more faulty distribution of wealth that prevailed. Producers were at the mercy of a government of officials, accustomed to extremes of luxury, and ever eager to squeeze for themselves the maximum out of the producer. An unnecessarily large number was occupied in official and domestic service or in religious pursuits, and an army lacking proper organisation and thorough training was always an unwieldy machine in the body politic. "A wealthy upper class," says Mr. Moreland, "may render substantial economic services if they use their wealth wisely and direct a steady flow of savings into productive channels, but there are no signs that such services were rendered in the India of Akbar's time, and where savings were accumulated they took the useless form of stores of gold and silver and gems. In the aggregate, a very substantial proportion of the income of the country was spent on waste and superfluities, the cost of which fell in the long run on the producing classes, the peasants, artisans, and merchants." The upper classes were small in numbers and included many foreigners. They were, all things considered, able to live much more luxuriously in Akbar's time than now. The middle classes seem, according to the author, to have occupied more or less the same economic position as at present. Their numbers, however, were proportionately small, and they were not an important section of the population. The lower classes were worse off than now. To the middle and upper classes a rupee was worth about

five rupees of the time just previous to the late war, possibly more, so long as they did not require the costly imported goods; to the classes between these and the poorest classes a rupee was worth about six rupees; and to the very poorest classes it was worth as much as seven rupees. For all ordinary comparisons Akbar's rupee might be taken as the equivalent of about six rupees of the modern currency.

Not even excepting Chapter IV., on "Agricultural Production," the best chapter in the whole book is Chapter VI., on "Commerce." It reads like a novel. Here we are dealing with a period when the Portuguese had wrested from Moslems the premier place on the Indian Seas. At the end of the sixteenth century there were signs of the weakening of Portuguese domination, and the Dutch and English were shortly to take its place. At the time of Akbar, for obvious reasons, we do not meet with the now familiar names of Calcutta, Bombay, Madras, Karachi, or Rangoon, but with the Cambay ports (Surat, Broach, Cambay, Daman, and Diu), the Bengal ports (Satgaon-Hooghly, Sripur, and Chittagong), the Coromandel ports of Negapatam and Masulipatam. We notice also Lahari Bandar or Diūl-Sind, Calicut, and Goa. We see the importance played by spices at a time when root crops in England were unknown to any extent; when, therefore, animals had to be killed for meat in summer and autumn, provision for the rest of the year being made by "powdering," which meant a large consumption of spices. In regard to the founding of the East India Company, Purchas, in *His Pilgrimes*, says: "The merchants of London, in the year of our Lord 1600, joined together and made a stock of seventy-two thousand pounds, to be employed in ships and merchandises, for the discovery of a trade in the East India, *to bring into the realm spices and other commodities*."

Although the author gives a bibliography with references at the end of each chapter, one misses footnotes throughout the chapters as to the exact source or sources of some of the statements. Sometimes conclusions are reached on scanty data which, however, are used with ingenuity. We need only refer to the paragraphs on the volume of foreign commerce in Chapter VI., or, for example, the use of shoes by the common people on p. 277. One feels that Mr. Moreland has given too much information on matters dealt with in the *Ain*, and too little in regard to parts not covered by the *Ain*. Here we have a field for further research. It is sometimes forgotten that from the end of the sixteenth century to the present time there are three centuries of records,

more complete as time goes on. It is to be hoped that the author will consider the advisability of publishing a source book for the use of Indian economic students on the ground covered by the book under review. We commend also to the notice of the author the lack of a first-rate standard text of the *Ain-i Akbari*. No author could undertake the latter with greater sureness of touch than the author of *India at the Death of Akbar*, which is a stimulating text-book that should certainly be used in Universities where Indian economic history is taught.

G. FINDLAY SHIRRAS

Essays on Indian Economic Problems. By BRIJ NARAIN, M.A., Professor of Economics, Sanatan-Dharma College, Lahore. (Pp. 307. 1919.)

THE author is a professor of economics in one of the Hindu colleges in Lahore. The essays, some of which are published for the first time, form a useful collection of notes by a trained observer on economic questions of importance in connection with the future of India.

The first two deal effectively with the contention of some Indian writers that the postulates of Western economic science have little application to our great Eastern Dependency. To a large extent this is the view put forward in Professor Radhakamal Mukerjee's *Foundations of Indian Economics*, which was reviewed in a recent issue of THE ECONOMIC JOURNAL. Mr. Brij Narain's criticism of that work may be described as severe, but it is certainly pertinent.

The next eight essays discuss various questions connected with the rise of prices in India. Of the remaining papers four are concerned with currency problems, one with the bank rate in India during the war, and five with the expediency of adopting protection as a means of developing Indian manufactures.

The rise of prices had attracted attention in India before the war, and a Committee of Enquiry reported upon it in 1914. As regards causes, the author offers a choice among :

(*a*) Mr. Datta's view, included in the Committee's report, that the rise was largely due to the failure of cultivation to respond adequately to increase of demand,

(*b*) the opinion of the Indian Government that it was the result of world causes and the expansion of credit, and

(*c*) his own contention that it was brought about by a redundancy of currency springing from the measures adopted to maintain the rupee at 1s. 4d.

The Government rightly rejected Mr. Datta's explanation,

and Mr. Brij Narain disputes the sufficiency of the official solutions. He appeals to the figures given in a table showing the rise in various countries between 1890-94 and 1907-11, and points out that these show an advance of 40 per cent. in India as compared with 11 in the United Kingdom, 20 in the United States, and 24 in Germany. But his argument is faulty. The general advance of prices began about 1896, and the quinquennia to be compared were 1894-98 and 1907-11. The rise on this basis was 21 per cent. in the United Kingdom, 38 per cent. in Germany and the United States, and 40 per cent. in India. It is true that protective tariffs may have aggravated the change in Germany and America, but the gulf between the official view and a complete explanation is not nearly so deep as the author imagines. He is probably right in thinking that the rapid increase of credit money in the form of cheques cannot have had much effect on prices, as payment by cheque still only covered a minute fraction of the total exchanges. In connection with his own explanation, Mr. Brij Narain draws a distinction between the value of the rupee for purposes of exchange and its value in terms of Indian commodities. He admits that the increase and decrease of the rupee circulation under the gold exchange system is automatic for the former purpose, but denies that it is so for the latter. The abnormal rise during the war he ascribes partly to inflation and partly to the shortage of foreign manufactured goods, for which Indian industries in their undeveloped state could provide no substitute. The optimistic pre-war official view that "the rise of prices has made India prosperous," that wages had quite kept pace with the increased cost of living, and that the classes adversely affected formed a small minority of the population, is shown to be exaggerated, though the author, perhaps, puts too heavy a weight in the opposite scale. During the war the abnormal rise was felt as a very great burden, and the Currency Commission has declared that "having regard to the conditions under which the large mass of the population lives we are satisfied that, in so far as the rise in exchange has mitigated a rise in Indian prices, it has been to the advantage of the country as a whole, and that it is desirable to secure the continuance of this benefit." It is noteworthy that Mr. Brij Narain, writing after the rising in the Panjab, stated that "the real causes of unrest . . . are . . . the heavy fall of real wages of large masses of the people." He proposes as one remedy, a small export duty on wheat. It is extremely doubtful whether such a duty, levied without regard to the actual Indian price at the time, would have much effect. The

real argument for an export duty is that, if bad harvests in India coincide with circumstances producing a temporary world shortage, prices may be forced up in India to a height which constitutes a heavy burden on a large part of the population, including the whole of the vocal literate classes.

From climatic reasons production in India is liable to sudden and extreme contraction. Dearness due to widespread crop failure cannot be met by the slow process of wage readjustment. The Indian consumer has the right to claim that his sufferings shall not be aggravated by the continuance of exports when prices are exceedingly high, simply because a wealthy country can afford to pay, and temporarily finds it difficult to get all it wants elsewhere. This points to the imposition of a duty only leviable when the price of wheat in the great Indian grain markets rises above a certain figure, and its increase according to a sliding scale, if prices rise still higher and export continues. The arguments of the Government of India quoted by Mr. Brij Narain have little force as objections to a duty on these lines.

A better Indian case for protection could be made out than that presented by the author, whose discussion of the subject is scrappy and inconclusive. He quotes largely from the speeches of Mr. Joseph Chamberlain, and confidently prophesies that England will jettison free trade after the war. "It is useless to contend," he says, "that protection does not raise prices to the consumer in the beginning, but in the long run . . . it lowers prices, provided combinations are not formed behind the tariff wall." But he gives no indication of the extent of protection required, or of the length of the run before the goal is reached. Sometimes, indeed, one might suspect that he had temporarily forgotten that "consumption, not production, is the final goal of economic activities" (p. 101). If he is in love with protection, he has none for imperial preference. He underrates the strong position of India as a great producer of foodstuffs and of the raw materials of industry, and as the monopolist owner of jute, and exaggerates the danger of retaliation. His objection to the export duty on hides, the first step of the Indian Government on the road of protection, seems to be that the 15 per cent. tax is reduced to 5 per cent. in the case of British possessions, and that this will provoke retaliation. But if retaliation is really dangerous, it is a weapon that can equally be used against protective duties, which do not discriminate between foreigners and fellow-subjects.

In view of the author's opinion that a gold exchange system tends to inflate the currency and to raise prices, it is not won-

derful that he favoured its abandonment. He thinks that that system can only be maintained so long as the price of silver is steady. It is, of course possible that, notwithstanding the buttresses suggested by the Currency Committee (Recommendation XI), the 2s. standard may break down as the 1s. 4d. standard has done. While there is a wide divergence between sterling and gold, "stability is in the depths and not on the surface" (Sir William Meyer), and, with its late Financial Member of Council, the Government of India can only pray for their happy reunion. Mr. Brij Narain's own solution would have been the adoption of a real gold standard with fully convertible rupees and notes. He disputes the conclusion of the Chamberlain Commission, which the Currency Committee endorsed, that there is no large popular demand for gold as a currency, and that gold should occupy only a very subordinate place in the actual circulation.

There is an error on page 174, curious in the case of so well informed a writer. It was in 1896-97, not in 1876, that the exchange value of the rupee stood at 18½d.

J. M. DOUIE

Indian Finance and Banking. By G. FINDLAY SHIRRAS. (London: Macmillan. 1920 (Third Impression). Pp. xiv + 535. 18*s*. net.)

INDIAN currency can always find some new thing with which to interest and instruct the student. More numerous and more skilled Commissions have sat over it than over any other currency in the world; yet no sooner does a Commission rise than this currency presents some further problem, which no one had contemplated in advance, to perplex its official custodians. The Chamberlain Commission dealt profoundly with the problem of a large temporary adverse balance of indebtedness and prescribed for it effectively; but they did not examine a single witness on the problem which actually presented itself, namely, a great favourable balance occurring in circumstances in which it was impossible to meet it fully by the import of silver, or satisfy the internal demand for currency. Accordingly the Babington-Smith Committee was called together to supplement the recommendations of its predecessor, and proposed a policy well devised to protect India from an excessive rise of prices in sympathy with world prices, and to fix the rupee at a gold parity safely in excess of the probable maximum of its bullion value. But they did not perceive beforehand that by fixing the rupee so much above its previous sterling value they might bring about so great a withdrawal of funds on the part of persons who were accustomed to

think in terms of sterling (and therefore saw an immediate profit), as, coming at a moment of depressed export trade, might render the maintenance of so high a value difficult or impossible. Yet this is what in fact ensued within a few weeks of their Report.

Mr. Shirras had before him, in writing his book, the Report of the Chamberlain Commission and the experiences of the war. Unfortunately the Babington-Smith Committee was still sitting when his book was published, and he has had to content himself with adding as an appendix to the third impression (which the usefulness of his book has rapidly demanded) a summary of the Report of this Committee and a copy of the announcement by the Government of India which followed it. This has not prevented him, however, from having plenty of new matter to place before the public. The Report of the Chamberlain Commission and the passage of events during the war had put all previous writings on the subject out of date; and Mr. Shirras has performed a very useful service in rendering this considerable body of new material readily available.

Mr. Shirras makes no generalisations and few criticisms. But he has written a full, accurate and well-documented account of the past history of Indian currency and its present features. The reader who wishes to know the facts will find them in this book; and if Mr. Shirras can bring it thoroughly up to date in the next edition, it should remain for some time to come the standard description of its subject.

The reader may sometimes wish that Mr. Shirras had been a little more adventurous, had split some nuts for him and reached the kernels of his fruit. But he has laboured under the disadvantages of being an official, and has evidently felt it proper to avoid treading on controversial ground. One additional topic, however, might have been introduced safely. Mr. Shirras has scarcely touched on Indian prices, on the relation of internal prices to world prices, and of import prices to export prices, or on the bearing of currency policy on price-levels. This was an important part of the enquiry of the Babington-Smith Committee, and must form, in such times as these, a principal preoccupation of the Government of India. In the interests of the peace and contentment of India I believe that no problem is more important, and I should be strongly disposed, if I were in their place, to subordinate currency policy to price policy. Yet Mr. Shirras was a member, I think, of the Committee on Indian Prices which produced several formidable folios, of which we should have been glad to see the contents in more compassable shape.

J. M. Keynes

NOTES AND MEMORANDA

MATHEMATICAL FORMULÆ AND THE ROYAL COMMISSION ON THE INCOME TAX.[1]

THE grounds on which the Commission reject the use of graduation formulæ are to be examined here. Their objections are summarised in the form of quotations from two expert witnesses (Report, 132).

I.—The first passage, from the evidence of Dr. Stamp, is directed against the use of a formula purporting to express the ideal relation between amount of income and amount of tax. In the context Dr. Stamp shows that it would be very difficult to obtain "a single comprehensive tax return for a year," as the practical application of such a graduation form would require (9583).[2] Moreover, whereas different formulæ are proposed, "it is impossible to say which of the various curves truly represent that principle of equality of sacrifice they purport to embody" (9609). "That function is necessarily unknown," as Professor Pigou puts it (4274). Again, as Professor Pigou suggests, it is not enough to secure equal sacrifice; "minimum aggregate sacrifice" must be taken into account (4256). Where the data are so vague the deduction must be "in the air" (Pigou, 4271, 2).

Yet the premisses, however inadequate to the deduction of a definite formula, may suffice for a certain negative conclusion. The ground which will not serve as the foundation of the elaborate edifice designed may yet be solid enough to support a battering-ram capable of being directed against simpler edifices in the neighbourhood. First (a), so far as equal sacrifice is supplanted by minimum aggregate sacrifice, whatever presumption in favour of progressive taxation is afforded by the principle of equal sacrifice becomes strengthened. "The case for (progressive) graduation is stronger" (Pigou, 4258). Now (β) some presumption in favour of progressive taxation is afforded by the principle of equal sacrifice. "The function," according to which the satisfaction attending income—and the sacrifice attending taxation—varies, is, indeed, "necessarily unknown" (4274). But some-

[1] Report [Cmd. 615], and Evidence [Cmd. 288, 1–7].
[2] The bracketed figures refer to the paragraphs in the Evidence.

thing about that function is known, or at least strongly presumed, namely, that satisfaction as dependent on income increases at a rate which diminishes more rapidly than does the rate of increase pertaining to the simple function proposed by Bernoulli as apt to represent the relation of means to satisfaction.[1] At least it may be safely assumed that the function has not the opposite character, that which would justify regressive taxation.[2] Thus, if either of the propositions α and β—and, *a fortiori*, if both—hold good, it follows that the common arrangement according to which the rate of taxation (the ratio of the tax to the total, or to the taxable, income) rises to a certain maximum, and thereafter remains constant[3] (however large the income), is contrary to the (distributional) first principles of taxation. The graduation proposed by the Commission is open to this criticism, in so far as the rate of taxation, though not perfectly stationary, increases very gently for incomes above £20,000. It is not significant for the purpose of this negative conclusion that super-tax and the income-tax proper are based on returns for different years. The additions by which the "effective rate" for the "total" of income-tax and super-tax is computed by the Commissioners in the tables of the second Appendix to the Report are accurate enough to justify this criticism.[4] Of course, the unprogressive character of the scheme may admit of justification on *productional* grounds. (Cf. 4012, 4119, 4356, 11787, *et passim.*)

II. The above use of the materials which some enthusiasts have attempted to use for the purpose of constructing an ideally just graduation is quite consistent with the view that such a construction is impossible. Having exposed that impossibility, Professor Pigou, in the course of his searching questions, goes on to educe "the real purpose of the thing" (4271). "When you have got certain points on your scale arrived at by general reasoning,[5] then a mathematical formula can give you a means of interpolating." The "interpolation" contemplated (by the present writer at least)

[1] In short it is presumed that the function is of the hyper-Bernoullian kind described in the ECONOMIC JOURNAL, Vol. vii. (1897), p. 557; where evidence in favour of the presumption is submitted. More recently Professor Pigou in *Wealth and Welfare* lends his authority to the presumption; and it is now commonly, though not universally, accepted.

[2] ECONOMIC JOURNAL, *loc. cit.*

[3] *Cf.* ECONOMIC JOURNAL, Vol. xxix (1919), p. 139 and p. 143.

[4] Nor need the objection that the income tax does not form the *whole* of taxation (*cf.* ECONOMIC JOURNAL, Vol. xxix (1919), p. 142) give us pause, with reference to so rough an estimate; especially when it is observed that indirect taxation (and part at least of local taxation) is proportional to expended income.

[5] *Cf.* Stamp, "the common sense and instinctive judgment of the people (Report, *loc. cit.*); Hopkins, "a matter of common judgment," (213).

is of the kind which, given a set of figures (forming, say, the "argument," or first column of a table), deduces a corresponding set of figures (to form the entries in the table) by means of a *formula*, or definite function. It is thus that actuaries deduce the mortality at different ages by means of the Gompertz or Gompertz-Makeham Law. The Pearsonian curves which play a great part in modern statistics are of this type.

To interpolation of this kind it may be objected that, in the words of the second passage adduced by the Commission, "it would try the temper of all taxpayers" (Report 132). Or, as Mr. Hopkins, the witness cited, says elsewhere, "a mathematical formula would try the intelligence of a large proportion of the general public." "The time of the tax officials would thus be occupied . . . in striving to appease distracted taxpayers by explaining the complications of the system" (4017). But why, it may be asked, should the general public want to have the complications explained? They are concerned only with the amount that each has to pay. A statement in the form of a table of the amounts calculated by the formula is sufficient (cf. 4337, 11,827). Cannot the general public read the dial of a town clock without going behind to inspect the works? Must not even the more intelligent be content with a general knowledge of the principle on which time is measured, without going into the niceties of "escapements," "gridiron pendulums," and the like. May not the general public be satisfied that the dictates of "general reasoning," "common-sense and instinctive judgment,"[1] are fulfilled by the scale of graduation, without comprehending the particular method of interpolation. This is one of the questions on which the logic of a student is of little weight against the judgment of official experts; so long, at least, as that judgment is confined to particular concrete cases; for instance, the testimony of Mr. Hopkins that mathematical formulæ have "no practical application to the Income-tax as it stands in this country at the present day" (4079).

A similar remark applies to the objection described by the Commission as "most serious and almost insuperable," namely, "the necessity of determining the *exact* total income of the taxpayer" (Report 133).[2] But that this objection is not universally

[1] Above p. 399.

[2] *Cf.* Hopkins (4017). "If the present simple methods of graduation were discarded in favour of some mathematical formula under which the rate of tax varied with, say, each pound of income, it would be necessary to know the *exact* amount of the total income before an assessment upon any part of the income could be accurately made."

applicable may be shown by an *argumentum ad hominem* or *ad vigintiviros*, the Commissioners, whose own scheme is nearly as open to this objection as one founded on a mathematical formula. To show this let us compare their scheme with formulæ of graduation proposed in the ECONOMIC JOURNAL.[1] We may employ the tests which they prescribe, namely "(*a*) practicability, especially so far as the conditions under which total income may be calculated are concerned; (*b*) equity, that is to say, the necessity for increasing the rate of tax steadily as the total income increases . . .; (*c*) simplicity in explanation and ease in comprehension" (Report, 135). The comparison is most conveniently made in the simple case of the taxpayer being a "single" person, and the income all "investment." The taxation proposed by the Commission is twofold, income-tax (proper) and super-tax.

The first tax is arrived at thus. Deduct £135 from the total income, and on the remainder, the "taxable income," impose a tax of 3s. in the pound, up to the limit of £360 total income, that is, £225 taxable income. On the portion of taxable income above that limit impose a tax of 6s. in the pound. This scheme may challenge comparison with one proposed in the ECONOMIC JOURNAL, according to which the rate of taxation is given by the formula

$$r \frac{x}{x+L};$$

where x is the taxable income, the remainder over and above an exempted minimum; r and L[2] are constants to be adjusted to conditions such as those stated by Professor Pigou in a passage above cited.

With reference to the first tract of income from £135 to £360, it may be admitted that, at least in this country at the present day, the Commission's scheme passes the first test better than

[1] Vol. xxix (1919), p. 138 *et seq.*

[2] This constant L, called M in THE ECONOMIC JOURNAL, is not to be identified with the constant, also called M there, employed in Prof. Cassel's scheme to represent the maximum abatement. L might be regarded as the excess of the maximum abatement above the minimum of subsistence, say £135. But that conception is not sufficiently general. Thus the formula might well be adapted to present a set of rates corresponding to the scale (income-tax *plus* super-tax) proposed by the Commission between incomes of £2000 and £20,000. If we determine L (and r) so that the taxes at those points should be the same as given by the formulæ and by the Commission (for single persons and income all investment) L proves to be above £1500, the total abatement above £1600! In the words of the Commission a "difficulty would be experienced in convincing people with small incomes" that taxpayers with large incomes might properly receive an abatement so much larger than that allowed to small incomes (Report, 138). *See* ECONOMIC JOURNAL, 1919, pp. 140, 141.

its rival. If the taxpayer is charged at the uniform rate throughout that tract, he is under less temptation to transfer his income by misrepresentation to a figure at which the rate is lower; and there will be less need of revising local assessments (Report, 133). But this advantage ends at the limit £360. Thereafter the "effective rate of taxation" on the total income, or on the taxable income—an equally appropriate conception—varies continuously for the Commission's scheme, just as well as according to the formula. If l is the limit at which the tax ceases to be simply proportional, and r is the standard rate (Report, 149), the rate of taxation on the taxable income is $r\frac{x-\frac{1}{2}l}{x}$; where, as before, x is the taxable income. This rate varies continuously with x just as much as that above given by the formula. Whatever practical expedients are employed to meet the difficulty in the one case are surely equally admissible in the other. On the first count, then, (*a*) the two candidates are equal. Considering next the third test (*c*), simplicity, can it be maintained that there is much difference between the two expressions for the effective rate on the taxable income, viz., $r\frac{x-\frac{1}{2}l}{x}$ and $r\frac{x}{x+L}$? Lastly, (*b*) as to equity and steady increase, let us compare the graduation determined by the formula with that prescribed by the Commission (for incomes above £360). Whereas there are two constants at our disposal, r and L, let us determine them so that the formula may coincide with the Commission's scheme at two points considered as the "certain points on your scale arrived at by general reasoning" (Pigou) or "instinctive judgment" (Stamp).[1] The limit £360—£225 above the exempted minimum (£135)—may properly be taken as one of those points.[2] Let us take £2,000 for the other point.[3] We have then two simple equations to determine r and L.[4] The resulting values are $r=0{\cdot}32058$ (6*s*. 6*d*. in the pound); $L=255{\cdot}869$.[5] Using these values for the con-

[1] Above, p. 399.

[2] Especially if it be conceded that the formula is not to apply below that limit, the effective rate for the tract below (and at the limit) being the same as what it is in the Commission's scheme, viz., 3*s*. per pound on the taxable income.

[3] Of course, if preferred, we might take for the other datum the "standard" ratio $r=\cdot 3$; with the result of greater consilience for the higher incomes, less for the lower ones.

[4] (1) $r\frac{225^2}{L+225}=33{\cdot}75$ (2) $r\frac{1865^2}{L+1865}=525{\cdot}75$

The figures on the right are obtained from the directions given in Part I of the Report; supplemented by Table I in Appendix II.

[5] Of course in practice round numbers would be employed.

stants, let us determine the tax according to the formula at several points, and compare the figures with those of the Commission.

TABLE I.—*Comparing Taxes according* A *to the Scheme of the Commission, and* B *the Formula.*

Income in pounds	360	500	700	1000	1500	2000
Tax A . . .	33·75	75·75	135·75	275·75	375·75	5 ·75
Tax B . . .	33·75	68·79	124·75	214·00	367·30	525·75

There seems to be no significant difference between the two sets of figures. A similar indifference is shown by a comparison of the effective rates of taxation.

TABLE II.—*Comparison of Effective Rates according to* A *the Commission Scheme,* B *the Formula.*

Income in pounds	360	500	700	1000	1500	2000
A . . :	1/10½	3/0½	3/10½	4/6	5/0	5/3
B . . .	1/10½	2/9	3/7	4/3½	4/11	5/3

The effective rates of taxation on the *taxable income* present a similar comparison. In point of equity and gradual increase there is nothing to choose between the two schemes.

The above comparison illustrates a property of some importance belonging to the sort of "interpolation" with which we are here concerned. If the constants are determined so that the formula shall fit exactly at a few points, it will generally be found to fit approximately in the neighbourhood of, and even to a considerable distance from, these points. The property was brought prominently under the notice of the Statistical Society on the occasion when Dr. Brownlee read a paper advocating a new formula for the graduation of a Mortality Table.[1]

Now let us go on to the second tax with which the Commission deals, the super-tax. And let no difficulty be created by the circumstance that the two taxes are not based on returns for the same year. The task of interpolation is not hampered by that circumstance; test (*a*) is passed triumphantly. For all that we have to do is to find a simple formula which will adequately repre-

[1] *Journal,* Vol. lxxxii (1919). Dr. Major Greenwood giving his own and Mr. Yule's experience said " they could fit the same data to this (the same) degree of accuracy by formulæ from two contradictory theories, the mathematical expressions of which were totally distinct one from another *loc. cit.* p. 67. Similar testimony was borne by another speaker (p. 75), with the reservation that the functions employed should be of a kind suited to the subject matter.

sent the scheme proposed by the Commission (Report, 152). Here is the scheme:—

TABLE III.—*Showing Rates of Super-tax proposed by the Commission.*

Income in thousands . .	2	2.5	3	4	5	6	7	8	9	10	20
Rates in successive zone . .		1/6	2	2/6	3	3/6	4	4/6	5	5	5

This scheme is like the "Scene of Man" according to Pope—"A mighty maze, but not without a plan." Over a portion of the tract dealt with, from three to nine thousand, a certain law is discernible. With reference to that portion we may say, in the words of a Commissioner, "the regularity of the curve ought to be sufficient almost to satisfy the soul of a mathematician" (4128). The satisfaction would be greater if, instead of making five steps each of length corresponding to £1,000 and of height 6*d*., there was a *continuous* rise in the rate; represented by a simple equation.[1] The total tax (above the point where regularity set in) would then be represented by a simple parabola instead of a discontinuous series of right lines.

But we are not concerned now with this partial regularity; our task is, rather, to represent the whole scheme by a simple formula. To carry in mind and comprehend the Commission's scheme, a number of features must be attended to; there are a great many "things to remember," in the phrase of one of the expert witnesses.[2] There is first the starting-point, £2,000; but this need not be counted against the scheme, as any rival scheme must also have a starting-point. Then there are the length £500 and the height 1*s*. 6*d*. of the first step, two "things to remember"; likewise the length of the second step £500 and the height 6*d*., two more things. Then we enter on a tract characterised by steps of equal length £1,000, and equal height 6*d*. There are thus only two things to remember about that tract up to the point at which it stops, 9,000, which makes another thing. The length and breadth of the next step (up to £10,000) count for two more things; and the step to £20,000 means two more.[3] Altogether, in order to comprehend the scheme, *eleven* details must be carried

[1] *Eg.* $y = rx$; x being the income above £3000, and y the rate on that excess. The total tax would be given by the *integral* of y, viz. $\frac{1}{2}\,r\,x^2$. Contrast the expression for the total tax according to the Commission's scheme given below Note to p. 405.

[2] Mr. Horner, deprecating the use of a table giving the tax payable on each of several incomes.

[3] *Cf.* ECONOMIC JOURNAL, *loc. cit.*, pp. 150 and 151.

in mind. A tiro at golf complained that he could only make a good stroke when he kept in mind, and simultaneously attended to, a dozen rules (as to the position and movement of his clubs and limbs) which he had been taught by the Professional. Now suppose, as some experts teach, that all the points which the golfist should observe are summed up in this one commandment, "Keep your eye on the ball"; would not this be favourable to "simplicity in explanation and ease in comprehension" (test *c*)? That is the sort of advantage which an interpolating formula offers to the practice of finance. There can be found an expression for the super-tax at any point of the scale from £2,000 to £20,000 which involves only *two* constants. Nor are they involved in a complicated fashion. Indeed, the expression is simpler than the expression for the super-tax at a point in that part of the Commission scale which alone admits of a general expression, the tract beginning at £3,000 and ending at £9,000.[1] The rule to be proposed is nearly as simple as that which applies to the *first* tract of the Commission's *income*-tax; which is the simplest possible, simple proportion. According to that rule, if x is the taxable income, and t is the tax to be paid thereon, $t=rx$, where r is a proper fraction. It comes to the same to say that, if y is the disposable income, that which remains over after the tax t has been paid, $y=bx$, where $b=1-r$ (also a proper fraction). That is the formula for unprogressive taxation. For progressive taxation, let us put a formula which seems next to that in simplicity, namely:

$$\operatorname{Log} y = b \operatorname{Log} x.$$

Mr. Hopkins, who so ably voices official objection to mathematical complications, would, it may be hoped, not object to the use of logarithms as calculated to try the temper and intelligence of the general public. For Mr. Hopkins himself employs logarithms for the purpose of exhibiting schemes of taxation. He writes: "The divisions of the line representing the amount of income in this and the following graphs are based not on the actual amount of the income, but on the logarithm of the amount of the income" (Royal Commission on Income Tax, Instalment II., p. 81 *et seq.*). Our graph would differ from his only in having *both* axes based on logarithms. Let the axis of x represent the logarithm

[1] If x is the amount in pounds of income above £3000, and n is the number of *integer* thousands in x, the general expression for the super-tax on $3000+x$ is according to the rules of the Commission.

$$87+x\left(\frac{1}{10}+(n+1)\frac{1}{40}\right)-\frac{n(n+1)}{2}\cdot\frac{1}{40}\,1000$$

of taxable income; and let the disposable income be measured on the axis of y. Then the simple equation, $y = bx$, represented by a line on a diagram, represents the (logarithm of the) disposable income corresponding to any assigned value of the (logarithm of the) taxable income. If another constant is required, there should be added to the expression for y another constant, say, A, or log a.[1] With reference to the case under consideration, the ratio of any y to the corresponding x is taken to be about 0.9; and the constant addendum 0.32; constants determined as follows. To fit the formula to the Commission's super-tax, assumed to be agreeable to the judgment of the wise, let us take as the points "arrived at by general reasoning," in Professor Pigou's phrase, £2,000 and £10,000; for which the amounts of super-tax are respectively *nil* and £1,462 (for single persons, with income all "investment"; Report, Appendix II., Table No. 4). We have thus two simple equations[2] whereby to determine the constants a and b. Solving these equations, we obtain: Log $a = 0{\cdot}32419$, $b = 0{\cdot}90179$. These constants are employed to find the disposable income and thence the tax payable for any amount of income between £2,000 and £20,000. Some comparisons with the scheme of the Commission are presented.

TABLE IV.—*Comparing Super-tax A according to the Commission, and B according to the Formula.*

Income in pounds	2000	5000	7000	10000	15000	20000
Super Tax A	0	362	737	1462	2712	3962
Super Tax B	0	443·4	853·6	1462	2697	4050[3]

The comparison of these figures with those proposed by the Commission will show that test (*b*) is satisfied by the new curve.

No doubt, if we advance far beyond £20,000, the characteristic property of interpolation which has been noticed[4] will cease to operate; there arises discrepancy of the kind shown below:—

[1] The equation Log y = Log a + b Log x is identical with the perhaps less familiar form given in THE ECONOMIC JOURNAL (1919, p. 144), $y = a\, x_b$.

[2] (1) Log a + b Log 2000 = Log 2000; (2) Log a + b Log 10,000 = Log (10,000 — 1462).

[3] Of course other *pivots* might have been used for the purpose of obtaining a formula of the proposed type corresponding to the scheme of the Commission (presumed to be just); for instance, 2000 as before, and 7000 for which the Super-tax, according to the Commission, is 737. Whence by parity of reasoning there is found b=·91101 and Log a=·29376. Which constants being inserted in the formula will give a scale similar in its general features to table IV.

[4] Above p. 403.

Table V.—*Comparing the Effective Rates of Super-tax on Incomes above £20,000 according to* A *the Commission's Scheme, and* B *the Formula.*[1]

Income in pounds	20,000	50,000	100,000	500,000	1,000,000
Effective rate A	3/11½	4/10½	5/2½	5/5	5/5½
Effective rate B	4/0½	5/6	6/4½	8/4½	9/1½

If, then, the flattening of the rate for the upper incomes was deliberate on the part of the Commission, the new formula will cease to correspond to their judgment. But if there was a minority, as we may surmise,[2] in favour of a more severe progression, they might welcome a formula which embodies their ideal without any additional complication; whereas, to effect a similar graduation (above £20,000) on the lines of the Commission, some dozen additional "things to remember" might be required. Or, if the requirements of a just progression were thought not to be quite satisfied by the formula, it would be easy to introduce one or more additional functions of the same type, tightening or lightening the tax at different points according to the judgment of experts and the sense of the community.[3] The Chancellor of the Exchequer, employing a formula which of all appropriate to progressive taxation seems one of the simplest,[4] may hope with some confidence to construct a scale of taxation not very different from the ideal scale, could it be discovered. He would be in the fortunate position of the statistician when, having to combine observations dispersed according to some unknown law, he selects, out of the innumerable possible methods of averaging, a familiar one—the arithmetic mean; or when, in the construction of an index-number, he employs some handy system of weights, the true system not being ascertainable. The statistician may be certain that the methods practised will not yield

[1] When an income-tax of so much (*e.g.* 6*s.*) per pound is added to a super-tax framed as above, there will *ultimately* (for incomes above some millions sterling per ann. !) be reached a stage at which the tax-payer will have no motive to increase his income (*See* Economic Journal 1919, p. 146 *et seq.*). But, if necessary, this breakdown can be indefinitely deferred by putting for "Log x" in the formula "Log $(1-\gamma)x$;" where γ is a proper fraction not exceeding the rate of the income-tax (*e.g.* ·3).

[2] Asked if he agreed to graduation leading to "practical extinction beyond a certain point," Dr. Stamp replied "I hesitate to say extinction, but I think severe progression," (9791).

[3] *Cf.* Economic Journal, 1919, p. 152.

[4] As the classical utility-function Log x/c (where x is the total income and c the minimum of subsistence), perhaps the simplest function which fulfils the condition of continual increase at a decreasing rate, leads to the (unprogressive) graduation formula $y=bx$; so the next simplest function that increases less rapidly, viz. Log Log x/c, leads to the (progressive) Log $y=b$ Log $x+\log a$.

the best result conceivable; but he may also presume that the result of the ideally best method is likely not to differ widely from that of his fairly good method. Something of the confidence which the theory of probabilities imparts to statistics the characteristic property of interpolation [1] may impart to fiscal practice.

Altogether, the Commission seem not to have done justice to the use of mathematical formulæ for the purpose of interpolation. They justly reject formulæ purporting to express an ideal scale of taxation. But they do not recognise that some approach to the ideal is possible by way of interpolation.

F. Y. EDGEWORTH

THE MARXISTS AT THE CROSS-ROADS

THE Marxist doctrine that the mere blind action of economic forces must necessarily lead to a collectivist régime, was very effective in gaining adherents to Socialism among the workers in early days. The mere fact that the social justice for which the proletariat consciously or unconsciously longed, ceased to be regarded as the dream of this or that idealist, and became instead the inevitable goal to which society, whether it would or no, was irresistibly drawn by the mechanical evolution of economic forces, was of enormous consequence. An ideal which might never have emerged from the Limbo to which Utopias are relegated, became a certainty which inspired both propagandists and their listeners with the firmest faith in its realisation. And in the making of converts this faith is the most important psychological element.

This fatalistic doctrine, however, concealed under its mantle of revolution and activity a germ of social conservatism and inertia. According to the Marxist, the mechanical evolution of the capitalist régime leads to a progressive concentration of all economic production in the hands of a limited number of industrial magnates. When the time is ripe, all that is required is to strip off the outer garment of private property and set up the collectivist régime. It follows that however necessary it may be to organise the proletariat so as to have an instrument ready to hand when the time for discarding capitalism arrives, yet no action can be taken, until the concentration both of business concerns and of private property has reached its full limit in every branch of the production of wealth. It was because Marx and his closest followers believed in this necessary economic develop-

[1] Above p. 403.

ment, that they never paused to criticise the legal aspect of the constitution of the society in which they lived, much less to point out suitable modifications tending towards that nationalisation of property for which the proletariat longs. In the eyes of the pure Marxists this constitution is in fact only part of the social superstructure formed and determined by the underlying process of wealth production. Nevertheless they regard it as entirely incapable of reacting, through any modification of its own, on the economic process. Consequently they have never raised a protest against the existing law of property; nor have they ever drawn special attention to the absolute right of bequest and inheritance, instituted by the propertied classes for the very purpose of keeping capital in general, and the instruments of production in particular, in private hands, so that not even the smallest fraction can become collective property. For Marx and the Marxists it is not worth while to tinker with existing institutions, since no change in these can deflect the inevitable course of the economic process. They are therefore a negligible quantity.

While however organised labour increased in numerical strength and gained enormously in importance relatively to the other classes of society, the concentration of the producing concerns and of private property throughout the whole field of economic activities did not fulfil the Marxist predictions. Yet this concentration is essential if the simple method of dispossessing a small group of industrial magnates is to bring the longed-for collectivist régime, ready-made and in working order, into being.

The ideas of right and justice for all peoples, and of emancipation for all who are oppressed, gained enormously in currency during the World War. The promises of greater justice for all classes of society to follow on victory, promises repeatedly made by the governing classes to the combatant masses at the front, and the masses in the workshops at home, as also the deep discontent left behind by the anxiety, sorrows and privations caused by the war and dragging on through the lengthy period of peace negotiations, all conduced to bringing a very large number of recruits to the Socialist army. They have produced everywhere a revolutionary ferment, such as has never been known before.

The revolutionary instrument then is here, ready and efficient. But it cannot proceed to its task of violent dispossession appointed by Marx, because the capitalists to be dispossessed are to-day not a small group, but legion. Moreover, the delicate economic mechanism of production is still infinitely far from the condition in which transition to a collectivist régime would be an easy

matter. On the contrary, revolutionary action to that end would result in complete confusion.

Hence in every European country, the Socialist leaders whom Marx and his doctrinaire followers have left without guidance, without even a general indication of the path to be followed, are perplexed and disconcerted. The masses are continually incited to Revolution; are solemnly told that the decisive hour is about to strike. But no one knows what results this Revolution is to achieve, or what economic organisation is to supersede the existing one. If the more fiery, in whose minds still resounds the confused echo of the Apocalyptic passage in *Das Kapital*, continue to preach violent dispossession, the more authoritative leaders of the party, with a greater sense of responsibility and a truer appreciation of the real position, give voice to the most earnest warnings. They point out that the destruction of the economic mechanism of wealth production would be an act of sacrilege absolutely disastrous to society in general and the working classes in particular. Nor could a worse time be chosen than the present when society must repair the ravages of war or perish.

The Socialists of all countries therefore hesitate in uncertainty between performing or not performing that one and only revolutionary act which Marx and his followers have been able to suggest; and their formidable force of action is worn out and reduced to impotence and inertia by the dilemma. Obsessed with the doctrine that the course of the economic process cannot be deflected by any modification of the law, they never ask, and never could ask, whether there is not an alternative method of arriving at the socialisation of capital and of the instruments of production. The method which never occurs to them is a gradual and continuous process which would not play havoc with production—a process initiated by a suitable modification of the law of property. When the representation of the working classes has gained sufficient predominance, and when the popular desire for a juster régime has become irresistible, the required change can be effected in legal form by constitutional action.

The Socialist leaders are therefore at the parting of the ways, and one of two courses they must take. Either they must renounce the Marxist doctrine of the blind evolution of the economic process, which cannot be influenced by the conscious action of men and parties through legislative enactments, and they must admit that law, and above all the law of property radically transformed, can effectually alter economic relations in favour of the working classes. Nor do the aspirations of the latter in this

respect conflict with the interests of society as a whole, which can derive nothing but benefit from a change calculated to relieve it of some of its parasites, and to make for greater social justice.

If this course be not adopted, the Socialist leaders have no alternative but to remain absolutely powerless. This is a condition no less harmful to society, which is kept in a chronic and purposeless state of revolutionary ferment, than to the party and its ideals, for whom inaction and impotence must inevitably spell discredit and discouragement.

EUGENIO RIGNANO

ABNORMAL DEVIATIONS IN INTERNATIONAL EXCHANGES

IN No. 112 of this JOURNAL Professor Cassel has maintained that "a country whose imports are impeded from all sides, but whose exports are relatively free, might see its money go up in value in foreign places considerably above the rates, which would correspond to the internal value of this money, as it is expressed by its purchasing power within the country."

In this way Professor Cassel seeks to explain the difference between the "internal" and the "external" value of money, which has manifested itself most conspicuously in Germany; but while in Germany the "internal" value was the higher, in Sweden the opposite was the case.

In No. 116 I have disputed Professor Cassel's explanation and made an attempt to show that, except momentarily, exchanges have nothing to do with the so-called balance of payments, or of trade, but are the resultant of prices.

In No. 117 Professor Cassel attacks my article, and makes the remark that I "*seem not to have understood* this most important cause (viz., prohibitions of exports or of imports) for a deviation of a rate of exchange from its purchasing-power-parity." As this is rather a singular way to inform the reader that I had *disputed* these causes as such, I suppose that Professor Cassel has not caught the tendency of my argument.

Professor Cassel reproaches me that "my quotation of his article is misleading," and that I wrongly identified his view with that which attributes the fall of exchanges to an import-surplus, recalling to my memory that he has "directed during all the years of the war a considerable part of his scientific work to efforts to destroy the popular fallacy, that the movements of the exchanges could be explained by the balance of trade."

I am well aware of this, and may fix Professor Cassel's atten-

tion to the first lines of my article, where I pointed out that Professor Cassel "has contended in Nos. 101 and 103 that the rates of exchange in a country are expressive of the internal value of the money, and for that reason are determined by the quotient of the inflation in that country."

But Professor Cassel appears not to see how he has come into direct contradiction with his former view by the amplification he has since given. He now maintains what he formerly disputed, and has surrendered to the enemy so completely, that he has already been cited as an authority for the view that "the movements of the exchange can be explained by the balance of trade," the same assertion which Professor Cassel himself formerly denounced as a "popular fallacy."

Professor Cassel now holds the view that "the exceedingly severe hindrances, which are put in the way of Sweden's imports and which surpass considerably those in the way of her exports, (with the result of) an unprecedented accumulation of assets in foreign countries together with a great import of Swedish securities from abroad," explain the higher external value of the Swedish money, because in such a case "claims on foreign money will be comparatively easy to procure but difficult to make use of."

What difference is there between this view and "the popular fallacy" that "the exceedingly severe hindrances, which are put in the way of Germany's exports, and which surpass considerably those in the way of her imports, with the result of an unprecedented accumulation of foreign assets in Germany together with a great export of German securities abroad, explain the higher 'internal' value of the German money, because in such a case claims on foreign money will be comparatively difficult to procure, but easy to make use of."

As Professor Cassel and other economists had previously confined their efforts to the *positive* assertion, that the exchanges are determined by the respective money values, the scope of my article was, to bring the *negative* proof, to show, what was the concrete mistake in the conception of the "balance of trade" view; and to explain, that the conception, that foreign money sinks in value when import is impeded, because claims on such money are then easy to procure, is the banker's view of the case, which does not penetrate into the core of the question and leads to a wrong conclusion. I need not repeat my argument here; that it was not unnecessary is proved by the fact, that such a competent theoretician as Professor Cassel fell into the snare for which that conception is responsible.

Exchanges must always be the resultant of prices, and if the "external" value of money presents a difference from the "internal" value, this can only mean, *that the price-level has not settled down and that prices of export and import goods are not in equilibrium with other prices.* Professor Cassel touches this point on p. 45 of No. 117, but if we call this a deviation from the purchasing-power-parity, we do not, in my opinion, use "words of precision." No general parity has in this case come to expression; the price-level does not act as a whole, but is irregular, and there seem to be different parities, out of which in the long run one parity will come forward again. There is no reason, however, to deduce a "parity" from the inland prices, and not from the import and export prices.

It stands to reason, that exchanges can never for a long period deviate from prices; this would mean that people would buy and sell at prices that did not suit them. Prices are not the resultant of exchanges, as is often thought, but of offer and demand for the commodity, and quantity of currency; and out of the prices so formed in several countries, exchanges arise.

There is a second error in Professor Cassel's article. In his latter article, in No. 117, Professor Cassel refers to "*one-sided interferences* between the trade of two countries, *e.g.*, prohibitions of exports or of imports, custom duties, etc." But such interferences are not one-sided at all, though they may appear as such at first sight. It is an old free-trade adage that, if import is restricted, export is also restricted, and vice versa. Protective policy does not originate an export surplus.

In the case of Sweden, on the contrary, there was an export surplus. Sweden's import was not hampered by import duties nor by prohibitions; far from that, Sweden's most ardent desire was to import as much as possible; but Germany wanted to import more than it could pay by exports, and thereby had to postpone its payments; Germany wanted credit, that was the reason of Sweden's export surplus, its assets in foreign countries, and import of home securities. The only connexion between exchanges and those credits was, that they both sprung from the same source—Germany's unfavourable economic situation.

On the other hand, duties certainly have an influence on the purchasing-power-parity, as they change prices; which influence it is impossible to tell, as it is equally impossible to tell, what influence they will have on the relation between the two price-levels; which of the two levels they will affect in the most

unfavourable way. At all events, duties will originate, not a *deviation from* the parity, but a *change of* the parity.

I am glad to hear from Professor Cassel that he "does not deny that a reduction of the consumption stock has the same influence on inflation as an increasing of the stock of money." But, if so, it is obvious that one cannot identify the inflation quotient of the different countries with the rates of exchange, as Professor Cassel has done in his former articles, because the difference in the movement of the consumption stocks in the different countries is then neglected as a factor in the reasoning.

E. C. VAN DORP

[This interesting controversy must now be considered to have ended.—EDITORS.]

RECENT OFFICIAL PAPERS

Report of the Board of Agriculture for Scotland by H. M. Conacher and Prof. W. R. Scott on Agricultural organisation in France, with suggestions for a Scottish Scheme of Agricultural Credit. Edinburgh: His Majesty's Stationery Office. 1920.

The International Year Book of Agricultural Statistics, 1909-1918. Rome: International Institute of Agriculture. 1920. Fr. 15.

The fifth Year Book of Agricultural Statistics is a volume of over 700 pages, which supplies in a systematic form for all countries having statistics the data on yield, trade, consumption, and prices of the chief agricultural products during the whole decennial period from 1909 to 1918 for the Northern Hemisphere, and to the first half of 1919 for the Southern Hemisphere. This is the last year book to deal with States according to the pre-war political frontiers.

CURRENT TOPICS

THE issues of THE ECONOMIC JOURNAL for June, 1918, September, 1918, March, 1919, and June, 1919, are now out of print. As a few additional copies are urgently required for the purpose of completing sets, the Secretary of the Royal Economic Society would be much obliged if any Fellows who can spare their copies of these issues would return them to the Assistant Secretary, Mr. S. J. Buttress, 6, Humberstone Road, Cambridge. **A payment of 7s. 6d.** will be made for each copy so returned.

An important volume of Memoranda has been published by Messrs. Harrison by direction of the League of Nations, which have been prepared for the Brussels Conference; but unfortunately it has been received too late for notice in this issue of the JOURNAL.

RECENT PERIODICALS AND NEW BOOKS.

Journal of the Royal Statistical Society.

MAY, 1920. *The Iron and Steel Trades during the War* M. S. BIRKETT. *The Fertility of Various Social Classes in England and Wales.* T. H. C. STEVENSON. The difference in fertility between classes became considerable in the last quarter of the nineteenth century. It is lowest in the professions. The lower child mortality of the less fertile classes is far from compensating their low fertility. *Crop Cycles in the United Kingdom and in the United States.* H. C. MOORE. By the use of "periodograms" is it found *inter alia* that there are cycles of eight years in the yield per acre of the crops in the United Kingdom, France and the United States. *The Theory of Measurement of Changes in Cost of Living.* T. L. BENNETT. An attempt to evade the besetting difficulty of index-numbers, that quantities consumed change simultaneously with prices. *The Variations of Wholesale Prices in Italy during the Great War.* PROF. C. OTTOLENGHI.

Edinburgh Review.

JULY, 1920. *Capitalism I.* DR. A. SHADWELL. Capitalism is defined and is shown to have existed in ancient times and the Middle Ages; contrary to Marxian doctrine. *War and Population.* THE EDITOR. Decline of birth-rate, being consistent with increase in the absolute numbers added yearly to the population (never so great as in this century), is no alarming symptom. The danger of being submerged by more prolific races may be lessened "if the slow-breeding nations make it part of their national policy to combine for mutual aid," and "by inviting the whole world to follow the wise example set by the more prudent classes."

Contemporary Review.

JULY, 1920. *The Nation's Wheat Supply.* ANTHONY COLLETT. *England and her Sugar.* J. SAXON MILLS.

Journal of the Institute of Bankers in Ireland (Dublin).

JANUARY, 1920. *Nationalization of Railways.* PROF. B. S. SHIELDS. After balancing the pros and cons of State management or ownership, the writer recommends for Ireland a temporary policy of delegated State management. In the APRIL and JULY numbers

Scientific Management and *Business Combinations* are discussed by the same writer.

Better Business (Dublin).

MAY, 1920. *A Corner of Co-operative Ireland.* DIARMED CAFFEE. A motor-car tour among Co-operative Societies. *The Economic Conditions of Central Europe since the Armistice.* N. R. G. A gloomy picture. *Co-operative Productive Federation.* R. HALSTEAD. The secretary of this institution explains how it aids Productive Societies by opening up a market for their goods, and in other ways. *Co-operative and Consumers' Societies.* The relations of Agricultural to other kinds of Co-operative Society are shown.

Indian Journal of Economics.

JULY, 1920. *Essentials of Sociology.* PATRICK GEDDES. *Proposed New Economics Course at Allahabad. The Indian Food Problem.* D. S. DUBEY.

Quarterly Journal of Economics (Boston).

MAY, 1920. *Nitrogen: its fixation, its uses in peace and war.* GRINNELL JONES. *Prices and Currency in Japan.* VICTOR CLARK. *Factors Determining the Interest Rate.* G. R. DAVIES. *The German Capital Levy Tax.* J. JASTROW. *Is Competition in Industry Ruinous?* ELIOT JONES.

The American Economic Review (Cambridge, Mass.).

JUNE, 1920. *The War and the World's Mercantile Marine.* ABRAHAM BERGLUND. *Final Aspects of State Income Taxes.* ALRADA COMSTOCK. *Cost, Fair Value, and Depreciation Reserves.* E. A. SALIERS. *War Profits and Excess Profits Taxes.* CARL PLEHN. This new tax expresses the general conviction that there is a normal or "modal" rate of profit. The working seems to justify Secretary Glass's description: "It encourages wasteful expenditure, puts a premium on over-capitalization, and a penalty on brains, energy, and enterprise." *Keynes' "Economic Consequences of the Peace."* CLIVE DAY. A criticism by one who took part in the *territorial* work of the Paris Conference. *The Past Decade of the Foreign Commerce of the United States.* S. LITMAN. There is a valuable résumé of the Report of the War Cabinet Committee on Women in Industry (noticed in the ECONOMIC JOURNAL) [Cmd. 167], by EDITH ABBOTT.

Political Science Quarterly (New York).

JUNE, 1920. *Forecasting the Crops of the Dakotas.* HENRY L. MOORE. "A properly equipped economist without leaving his study could have reached more accurate predictions" than the Government forecasts "from the simple data published by the Weather Bureau." The rainfall at a critical season, and with

it the leading crops of the Dakotas, tends to follow a compound cycle. *The Burdens of Preparedness and War.* S. LEON LEVY. Extracts from the unpublished lectures of Senior (mentioned in the ECONOMIC JOURNAL, 1918) clinch objections to the policy of "bellum para." Seligman, Bogart, and Leonard Ayres contribute to an estimate of the burden imposed by the late war.

Annals of the American Academy (Philadelphia).

MAY, 1920. This issue deals with *prices*: the gains and losses caused by rising prices, the prospective changes in the price level, etc. SIR GEORGE PAISH describes the world's monetary breakdown. PROF. J. HOLLANDER connects inflation with the bungling of the American Government. PROF. G. CASSEL advocates an international discussion of the world's monetary problem.

JULY, 1920. *Industrial Stability* is the subject of this number. PROF. E. MAHAIM contributes an interesting account of labour in Belgium during and after the War.

The Journal of Political Economy (Chicago).

JUNE, 1920. *The Measurement of Labor Mobility.* Paul F. BRISSENDEN. *The Co-operative Movement in Nebraska.* MAURICE H. WESEEN. *Neglected Factors in the Incidence of Taxation.* H. GUNNISON BROWN. The effects of taxation of commodities on the general price-levels, and its incidence on entrepreneurs, consumers and others are exhibited.

The Review of Economic Statistics (Cambridge, Mass.).

JUNE, 1920. Besides the usual monthly survey of general business conditions there is a computation of the world's industrial consumption of gold; distinguishing the amount taken from old and from fresh material. Thus for the United States 1911–1913, the average annual consumption was 43½ million dollars, of which from new material 35½. There is a useful Appendix of current statistics.

Journal des Économistes (Paris).

MARCH, 1920. *La Grève des cheminots.* YVES GUYOT. *Questions monétaires.* A. RAFFALOVICH. *La Loi belge sur l'imposition des bénéfices de guerre.* MAURICE DEWAVRIN. *L'Expropriation de la grande propriété rurale et la Question agraire en Roumanie.* GEORGES MANTOU. *Inefficacité des lois protégeant les consommateurs en Angleterre.* A. RAFFALOVICH. *Le Programme syndicaliste et la Révolution économique.* F. JACQ.

APRIL, 1920. *La Conciliation et l'Arbitrage.* YVES GUYOT. *Un critique anglais du Traité de Versailles.* A. RAFFALOVICH.

MAY, 1920. *Les Nouveaux Impôts.* YVES GUYOT. *Un chapitre d'histoire monétaire en Angleterre.* A. RAFFALOVICH. *La Situation économique et financière du Japon en 1918-19.* GEORGES DE NOUVION.

JUNE, 1920. *Baisse des prix et Baisse de Changes.* YVES GUYOT. *La législation français de pensions civiles et militaires.* J. GIRARD. *La crise du logement.* G. DE NOUVION.

Revue d'Économie Politique (Paris).

MAY–JUNE, 1920. *L'inégalité devant la mort d'après les statistiques de la Ville de Paris.* L. HERSCH. The poorer the district the higher the mortality; that of the poorest class being more than double that of the richest. The mortality of illegitimate children in the lowest class is *four times* that of legitimate children in the highest class. *Le nombre indice du coût de la vie.* H. PROMER. A study based on the enquiries of the Swiss Union of Consumers' Societies. *Le progrès de l'agriculture en France et en Allemagne.* B. RAMBAUD.

Giornale degli Economisti (Rome).

APRIL, 1920. *Una teoria statistica sulla frequenza delle Malattie.* S. MINELOLA. *Sulla compozione numerica delle famiglie.* G. MORTARA.

MAY, 1920. *Sull' assicurazione obligatoria contro l'invalidità e la vecchaia.* T. BAGNI. *La Nuova opera di Alfredo Marshall.* R. BACHI. An analysis and eulogium of *Industry and Trade.* *Osservazioni sopra le presenti difficolta monetàrie.* G. DEL VECCHIO.

JUNE, 1920. *Le industrie nel mezzogiorno continentale prima de 1860.* GINO ARIAS. *La statistica come storia empirica delle scienze naturali.* M. BOLDRINI.

Revista Nacional de Economia (Madrid).

No. 23, 1920. *Subsistencias y precios.* E. L. ANDRÈ. The rise in the cost of living in various countries is compared. *La enseñanza técnica superior.* V. P. BRUGADA. *El acomodádo Obrero.* H. M. SIMARRO Y PUIG. On forms of co-partnership.

NEW BOOKS.

English.

CRAMMOND (EDGAR). The Real Cost of the War. An address to the Institute of Bankers, London.

Currencies after the War. A survey of conditions in various countries compiled under the auspices of the International Secretariat of the League of Nations. London: Harrison. Pp. xvi+234. 7*s*. 6*d*. net.

HECHT (JOHN S.). The Real Wealth of Nations, or A New Civilisation and its Economic Foundations. London: Harrap. 1920. Pp. 350. 15s.

[There is suggested a measure of wealth by which an equitable distribution may be secured.]

KITSON (ARTHUR). Money Problems. With a criticism by Hartley Withers. Stamford: Dolby Brothers. Pp. 141.

[Articles on Currency and Banking which appeared in the *Times* Trade Supplement, with replies by Mr. Withers and rejoinder by Mr. Kitson.]

LEITCH (JOHN). Man to Man. With introductions by the Right Hon. G. N. Barnes and Sir Robert Hadfield. London: Putnams. Pp. xxix + 249.

[A scheme for "industrial democracy" in America.]

MACLAURIN (ROBERT). The Oversea Illusion. Its amazing effects on Prices, Wages and Output. London: Bell. Pp. 213.

[To counteract the undue prevalence of foreign trade it is proposed to tax exports and imports from oversea investments.]

MACARA (SIR CHARLES). The International Idea in Industry. Manchester.

[Referring to the International Cotton Federation and the International Institute of Agriculture.]

McVEY (FRANK L.). Financial History of Great Britain, 1914-1918. (Carnegie Endowment for International Peace.) New York: Oxford University Press. Pp. 101.

[The author is President of the University of Kentucky.]

OLDHAM (Prof. C. H.). The Dublin Chamber of Commerce and the Government of Ireland Bill. Dublin Chamber of Commerce. 1920. Pp. 54. 6*d*.

[This is the Report of a special Committee appointed to consider the Government of Ireland Bill. Partition and the financial provisions of the Bill are deprecated. An important memorandum by Prof. Oldham explains the financial relations of England and Ireland. He especially deplores the definition of Ireland's Imperial Contribution as a fixed proportion of the whole imperial expenditure.]

Oxford Tracts on Economic Subjects. Set IV. London: Milford. 10½d.

[A continuation of the series already noticed in the ECONOMIC JOURNAL. Among the subjects treated are Taxation, Capital, Index Numbers, Money.]

PAINE (W. W.). Short papers on (1) A Capital Levy as a Means of Taxation; (2) The Present Unrest in Industry; (3) Capital and Labour; and (4) The Nationalisation of Industry. London: Effingham Wilson. 2*s*.

PAISH (SIR GEORGE). The World Crisis. A suggested remedy. London: Benn. Pp. 30.

[Production is to be restarted by a co-operative loan of £4,000,000,000.]

REA (RUSSELL). The Triumph of Free Trade and other Essays and Speeches. With an introduction by C. F. Masterman. London: Macmillan. 15*s*.

Russia: Labour Conditions in Soviet Russia. Systematic Questionnaire and Bibliography. Prepared for the Mission of Enquiry on Russia. London: Harrison. Pp. 294+cxliv. 7*s*. 6*d*. net.

RYAN (JOHN A.). A Living Wage: its ethical and economic aspects. New York: Macmillan Co. 1920. Pp. 182.

SCOTT, J. W. Karl Marx on Values. London: Black. Pp. vii+54. 2*s*. 6*d*. net

Statesman's Year Book, 1920. London: Macmillan.

[The fifty-seventh number of this annual.]

TAYLOR (REGINALD). The Socialist Illusion. London: Allen and Unwin. 2*s*. 6*d*. net.

WEBB (SIDNEY and BEATRICE). A Constitution for the Socialist Commonwealth of Great Britain. London: Longmans. 12*s*. 6*d*. net.

WHITE (BENJAMIN). Common Commodities and Industries. Gold: its place in the Economy of Mankind. London: Pitman. 3*s*.

American.

CARLTON (F. TRACY). Organised Labour in American History. Appleton. Pp. 312. 12*s*. 6*d*. net.

CHUNG SU SEE. The Foreign Trade of China. New York: Columbia University.

GOLDMARK (JOSEPHINE) and HOPKINS (MARY D.). Comparison of an Eight-hour Plant and a Ten-hour Plant. Report on an investigation by P. Sargent Florence and Associates. Pp. 213. Washington: Government Printing Office. 1920.

[United States Public Health Service: Bulletin No. 106. *Cf*. Mr. Sargent Florence's article in THE ECONOMIC JOURNAL for June, 1920, *An Official American Study of Industrial Fatigue*.]

LAIDLER (HARRY W.). Socialism in Thought and Action. New York: Macmillan Co. 1920. Pp. 546.

MCPHERSON (LOGAN GRANT). The Flow of Value. Pp. 473. New York: The Century Co. 1919.

[This book claims to "demonstrate that as all things and services bought and sold are produced by the application of human effort, the greater the volume that is produced in relation to the effort applied, the greater will be the supply, and thus the greater the share that each person may receive." The volume is of no particular value.]

ROSS (E. A.). The Principles of Sociology. (Century Social Science Series.) New York: Century Co. 1920. Pp. 708.

SCOTT (EMMETT J.). Negro Immigration during the War. (Carnegie Endowment for International Peace.) New York: Oxford University Press. 1920. Pp. 183.

STULL (WILLIAM). The Food Crisis and Americanism. New York: The Macmillan Co.

WOLFE (ARCHIBALD J.). Theory and Practice of International Commerce. New York: International Bank Publishing Co. 27*s*. 6*d*. net.

French.

DUFOUR (M.). Le Syndicalisme et la prochaine révolution. Paris: Rivière. Pp. 437. 6 francs.

[The writer is an Emeritus Professor of Political Economy.]

GIDE (CH.) and RIST (CH.). Histoire des Doctrines Economiques depuis les physiocrates jusqu'à nos jours. Third Edition, revised and corrected. Pp. xx+806. Paris: Recueil Sirey. 1920. Frcs. 20.

[The new edition of this standard work, which has been "crowned" by the Académie des Sciences Morales et Physiques, is not much altered from the second edition, but includes a new section on Bolshevism.]

SOREL (GEORGES). Matériaux d'une Théorie du Prolétariat. Paris: Rivière. Pp. 424. 7 francs.

Spanish.

BERNIS (PROF. FRANCIS). Fomento de las exportaciones. (Biblioteca de Cultura Moderna.) Barcelona: Minerva. Pp. 232.

[The bulk of this volume was prepared for a Commission dealing with the means of encouraging exportation. An introduction on the National Economy of Spain is dated 1917.]

Italian.

EINAUDI (LUIGI). Il Problema della Finanza Post-bellica. Pp. 192. Milan: Treves. 1919. L. 4.

[Reviewed above.]

EINAUDI (L.). Osservazioni critiche intorno alla teoria dell' ammortamento dell' imposta. Turin: Bocca.

GRAZIANI (A.). Lo sforzo economico dell' Italia nella guerra mondiale. Trieste.

LANZILLO (A.). Lo stato e la crisi monetaria e sociale postbellica. Milan: Treves.

LORIA (A.). Le peripezie monetarie della guerra. Milan: Treves. 1920. L. 4.

MORELLI (D.). Il protezionismo industriale in Italia. Milan: Societa editrice libraria.

German.

CASSEL (G.). Theoretische Sozialökonomie. Pp. xii + 582. Leipzig: C. F. Winter. 1918.

[The second section of the comprehensive treatise *Lehrbuch der Allgemeinen Volkswirtschaftslehre*, for which Professor Pohle and Professor Cassel are jointly responsible. To be reviewed.]

LENZ (ADOLF). Der Wirtschaftskampf der Völker und seine internationale Regelung. Pp. xvi + 315. Stuttgart: Enke. 1920.

[The struggle between British and German imperialism down to the Peace Treaties of Versailles and St. Germain.]

MAUTNER (W.). Der Bolschewismus: Voraussetzungen, Geschichte, Theorie, zugleich eine Untersuchung seines Verhältnisses zum Marxismus. Pp. xxiii + 368. Berlin: Kohlhammer. 1920.

[To be reviewed.]

THE ECONOMIC JOURNAL

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EUROPE AFTER THE GREAT WARS, 1816 AND 1920[1]

HISTORICAL situations are never reproduced, even approximately; but it is at least interesting to recall the post-war problems which our grandfathers or great-grandfathers had to face, and how they handled them; to ask how far our sufferings and anxieties have had their parallels in the not remote past; and to note some danger signals. By "we" I mean not the British only, but all the peoples of Western and Central Europe. Of Eastern Europe I will only speak incidentally; for I am unable as yet to extract truth from the conflicting and biassed evidence as to its economic condition. Moreover, there is still war in the East.

In 1815 France had been engaged in almost continuous wars for twenty-three, England for twenty-two, years. The German States had been at war less continuously; but they had been fought over, conquered, and occupied by the French. Prussia, for instance, was overthrown in 1806. When the final struggle against Napoleon began, in 1812, there was a French Army of Occupation of nearly 150,000 men in Prussia alone. From 1806 to 1814 Napoleon's attempt to exclude English trade from the Continent had led to the English blockade—with its striking resemblances to, and its striking differences from, the blockade of 1914–19. Warfare was less horribly intense, and so less economically destructive, than it has become in our day; but what it lacked in intensity it made up in duration.

Take, for instance, the loss of life. For England it was relatively small—because for us the wars were never people's wars. In France also it was relatively small in the earlier years, when armies of the old size were mainly employed. But under

[1] Presidential Address before Section F of the British Association, Cardiff, Aug. 25, 1920.

Napoleon it became enormous. Exact figures do not exist, but French statisticians are disposed to place the losses in the ten years that ended with Waterloo at fully 1,500,000. Some place them higher. As the population of France grew about 40 per cent. between 1805–15 and 1904–14, this would correspond to a loss of, say, 2,100,000 on the population of 1914. The actual losses in 1914–18 are put at 1,370,000 killed and missing; and I believe these figures contain some Colonial troops.

Or take the debts accumulated by victors and the requisitions or indemnities extorted from the vanquished. The wars of a century ago left the British debt at £848,000,000. According to our success or failure in securing repayment of loans made to Dominions and Allies, the Great War will have left us with a liability of from eight to nine times that amount. Whether our debt-carrying capacity is eight or nine times what it was a century ago may be doubted, and cannot be accurately determined. But it is not, I would venture to say, less than six or seven times what it was, and it might well be more. A good deal depends on future price levels. At least the burdens are comparable; and we understand better now where to look for broad shoulders to bear them.

After Waterloo France was called upon to pay a war indemnity of only £28,000,000, to be divided among all the victors. With this figure Prussia was thoroughly dissatisfied. Not, I think, without some reason. She reckoned that Napoleon had squeezed out of her alone, between 1806 and 1812, more than twice as much—a tremendous exaction, for she was in those days a very poor land of squires and peasants, whose treasury only received a few millions a year. England, who was mainly responsible—and that for sound political reasons—for the low figure demanded of France, found herself, the victor, in the curious position of being far more heavily burdened with debt than France, who had lost. England, of course, had acquired much Colonial territory; but on the purely financial side the comparison between her and France was most unequal. England's total national debt in 1817 was £848,000,000. France's debt did not reach £200,000,000 until 1830.

The reasons why France came out of the wars so well financially were four: First, she had gone bankrupt during the Revolution, and had wiped out most of her old debt. Second, under Napoleon she had made war pay for itself, as the case of Prussia shows. Third, there was no financial operation known to the world in 1815 by which England's war debt, or even half of it,

could have been transferred to France. Fourth, England never suggested any such transference, or, so far as I know, ever even discussed it.

France's financial comfort, immediately after her defeat, extended to her currency. During the Revolution she had made a classical experiment in the mismanagement of credit documents, with the assignats issued on the security of confiscated Church property; but after that she had put her currency in good order. Her final defeat in 1812–14, and again in 1815, did not seriously derange it. Indeed, the English currency was in worse order than the French, owing to the suspension of cash payments by the Bank of England; and so rapidly did France's credit recover after 1815 that in 1818 French 5 per cents. stood at almost exactly the present-day price of British 5 per cent. War Loan. That year she finished the payment of her war indemnity, and the last armies of occupation withdrew.

She had no doubt gained by waging war, and eventually suffering defeat, on foreign soil. No French city had been burnt like Moscow, stormed like Badajoz, or made the heart of a gigantic battle like Leipzig. Napoleon fought one brilliant defensive campaign on French soil, in the valleys of the Marne and the Seine, in 1814. In 1815 his fate was decided in Belgium. Hardly a shot was fired in France; hardly a French cornfield was trampled down. But France, as in 1918, was terribly short of men, and, again, as in 1918, her means of communication had suffered. Napoleon's magnificent roads—he was among the greatest of road engineers—had gone out of repair; his great canal works had been suspended. These things, however, were soon set right by the Government which followed him.

France's rapid recovery brings us to one of the essential differences between Western Europe a century ago and Western Europe to-day. In spite of Paris and her other great towns, the France of 1815 was a rural country, a land of peasants and small farmers. Only about 10 per cent. of her population lived in towns of 10,000 inhabitants or more. The town below 10,000, in all countries, is more often a rural market town, ultimately dependent on the prosperity of agriculture, than an industrial centre. Parallels for France's condition must be sought to-day in Eastern Europe—in Serbia or Russia. It is a condition which makes the economics of demobilisation easy. The young peasant goes back from the armies to relieve his father, his mother, and his sisters, who have kept the farm going. Moreover, France maintained a standing army of 240,000 men after 1815; and her

losses in the Waterloo campaign had been so heavy that the actual numbers demobilised were relatively small. Demobilisation left hardly a ripple on the surface of her economic life.

The German States were far more rural in character even than France. There were a few industrial districts, of a sort, in the West and in Saxony; a few trading towns of some size, like Hamburg and Frankfurt; but there was nowhere a city comparable to Paris. In 1819 the twenty-five cities which were to become in our day the greatest of the modern German Empire had not 1,250,000 inhabitants between them. Paris alone at that time had about 700,000. German statesmen, when peace came, were occupied not with problems arising from the situation of the urban wage-earner, though such problems existed, but with how to emancipate the peasants from the condition of semi-servility in which they had lived during the previous century. Here, too, demobilisation presented few of the problems familiar to us. Probably not one man in ten demobilised was a pure wage-earner. The rest had links with the soil. The land, neglected during the war, was crying out for labour, and every man had his place, even if it was a servile place, in rural society.

Things were different in England; but our demobilisation problem was smaller than that of our Continental allies or enemies, who had mobilised national armies, though not of the modern size. On the other hand, we had kept an immense fleet in commission, the crews of which were rapidly discharged. Early in 1817 Lord Castlereagh stated in Parliament that 300,000 soldiers and sailors had been discharged since the peace. In proportion to population, that would be equivalent, for the whole United Kingdom, to nearly 750,000 to-day. For these men no provision whatever was made. They were simply thrown on the labour market; and the vast majority of them were ex-wage-earners or potential wage-earners, industrial, mercantile, or agricultural. The United Kingdom was not urbanised as it is to-day; but the census of 1821 showed that 21 per cent. of the population lived in cities of 20,000 inhabitants and upwards, and probably about 27 per cent. (as compared with France's 10 per cent.) lived in places of 10,000 and upwards. As industry in various forms, especially coal-mining, spinning, and weaving, was extensively carried on in rural or semi-rural districts, it is certain that at least one demobilised man of working age in every three was a potential wage-earner of industry or commerce. And as Great Britain had lost most of her peasant-holders, whether owners or small working farmers, the remainder of the demobilised rank

and file were nearly all of the agricultural labourer class. They had to find employment; there was not a place in rural society waiting for them, as there was for the average French or German peasant soldier. It is not surprising that the years from 1815 to 1820 were, both economically and politically, probably the most wretched, difficult, and dangerous in modern English history.

Things were at their worst in 1816–17, both for England and for her Continental neighbours. Western Europe was very near starvation. Had the harvest of 1815 not been excellent, so providing a carry-over of corn, or had the harvest of 1817 been much below the average, there must have been widespread disaster; so thorough and universal was the harvest failure of 1816. In the latter part of 1815 (December) wheat fell in England to 55*s*. 7*d*., although no grain imports were allowed, except of oats. Early in 1816 the United Kingdom was actually exporting a little wheat. Then came a terrible spring—a long frost; snow lying about Edinburgh in May; all the rivers of Western Europe in flood. An equally disastrous summer followed. There was dearth, in places amounting to real famine, everywhere—worst of all in Germany. Unlike France, the German States of a century ago were extraordinarily ill-provided with roads. What roads there were had gone to pieces in the wars. In winter even the mails could hardly get through with sixteen and twenty horses. Food supplies could not be moved over long distances by land; and the slightly more favoured regions could not help the most unfortunate. There was a far wider gap between prices in Eastern and Western Germany in 1816 than there had been in the last bad famine year (1772). Each German State, in its anxiety, began to forbid export early in 1816, thus making things worse. At Frankfurt the representatives of the German States, gathered for the Diet, could hardly feed their horses. Prices rose amazingly and quite irregularly, with the varying food conditions of the various provinces. In the spring of 1817 pallid, half-starved people were wandering the fields, hunting for and grubbing up overlooked and rotten potatoes of the last year's crop.

In England the harvest failure of 1816 drove wheat up to 103*s*. 7*d*. a quarter for December of that year, and to 112*s*. 8*d*. for June of 1817. In Paris the June price in 1817 was equivalent to 122*s*. 5*d*. At Stuttgart the May price was equivalent to 138*s*. 7*d*. These are only samples. Think what these figures mean at a time when an English agricultural labourer's wage was about 9*s*. 6*d*., and a French or German unskilled wage far less.

It must be recalled that there were no special currency causes of high prices either in France or Germany. These were real dearth prices. In the spring of 1817 the French Government was buying corn wherever it could find it—in England, North Africa, America—as another bad harvest was feared. Happily, the 1817 harvest was abundant, here and on the Continent. By September the Mark Lane price of wheat was 77*s*. 7*d*., and the Paris price 71*s*. 9*d*.

I have gone into price details for the purpose of drawing a contrast between a century ago and to-day. Except for the damage done to the German roads, the wars had very little to do with these food troubles of 1816–17. High and fluctuating food prices were the natural consequence of the general economic position of Western Europe a century ago. It was only in the most comfortable age in all history—the late nineteenth and early twentieth centuries—that low and stable food prices came to be regarded as normal. In the eighteenth century, when England fed herself and often had an exportable surplus, fluctuations were incessant. Take the ten years 1750-60. The mean price of wheat at Eton in 1752 was 45 per cent. above the mean price in 1750. The mean price in 1757 was nearly 100 per cent. above the mean price of 1750. On Lady Day, 1757, the price was 60*s*. 5¼*d*. On Lady Day, 1759, it was 37*s*. 4*d*. On Lady Day, 1761, it was 26*s*. 8*d*. The 1761 mean price was exactly half the 1757 mean price.

Eighteenth-century England was too well organised economically to be in much risk of actual famine, but for Ireland and large parts of the Continent famine was a normal risk. War and its effects had only accentuated, not created, that risk. Imports might reduce it, but could not avert it, because Western Europe tends to have approximately the same harvest conditions throughout, and it was impossible to draw really large supplementary supplies from anywhere else. So unimportant were overseas supplies that the Continent suffered very much more from the harvest failure of 1816, in time of peace, than from the eight years' English blockade in time of war. If overseas supplies could be got they were hard to distribute, owing to defective transport facilities. Thanks to the work of the nineteenth century, the most terrific of all wars was required to bring Western Europe face to face with what had been both a war-time and a peace-time risk a century earlier.

But the old Europe, if it had the defects, had also the elasticity of a rather primitive economic organism. Given a couple of good

harvests, and a land of peasants soon recovers from war. Serbia had a good harvest last year (1919), and was at once in a state of comparative comfort, in spite of her years of suffering. A second good harvest this year, for which fortunately the prospects are favourable, would almost restore her. So it was with France and, to a less extent, Germany in 1816–18. In France acute distress in 1816–17 had been confined to the towns and to those country districts where the harvest failure was worst. The harvest of 1817 put an end to it. One gets the impression that in Germany distress among the peasants themselves had been more widespread. Worse communications and the absence of a strong central Government seem to have been the chief causes of this, though perhaps the harvest failure was more complete. In France, as we have seen, the central Government took such action as was possible in the interests of the whole country. A parallel might be drawn between the German situation in 1815–17 and that of the States which have arisen from the break-up of the old Austro-Hungarian Empire since 1918. Freed from French domination, and then from the urgent necessity of co-operating against a common enemy, the German States relapsed into their ancient jealousies and conflicting economic policies, just as the new States, which were once subject to the Hapsburgs, have been forbidding exports of food and fuel and disputing with one another.

An excellent harvest in 1817 averted the risk of famine in Germany also; but anything that could be called prosperity was long delayed, whereas France was indisputably prosperous, judged by the standards of the day, and far more contented than England, by 1818–20. Germany had been so exhausted by the wars and incessant territorial changes of the Napoleonic age, and was politically so divided, that her economic life remained stagnant and her poverty great until at least 1830. It was all that the various Governments could do to find money for the most essential of all economic measures—the repair and construction of roads—whereas France had her splendid main roads in order again and had resumed work on her canals before 1820. But France had cut her losses nearly twenty years before, and had enjoyed continuous freedom from war on her own territory between 1794 and 1814, as we have seen. She had been well, if autocratically, governed, and her war indemnity was but a trifling burden. Her peasants were free and, as a class, vigorous and hopeful. She was united and conscious of her leadership in Europe, even through her ultimate defeats.

If the experience of Europe after Waterloo is, on the whole, of good augury for agricultural States, and especially for agricultural States with a competent central Government, for the industrialised modern world that experience is less encouraging. Great Britain alone was partially industrialised in 1815–20, and Great Britain, though victorious, suffered acutely. Mismanagement was largely responsible for her sufferings—mismanagement of, or rather complete indifference to, problems of demobilisation; mismanagement of taxes (the income tax was abandoned at the clamour of interested parties, and the interest on the huge debt paid mainly from indirect taxes, which bore heavily on the poor); mismanagement of food supplies, by the imposition of the Corn Law; and so on. But suffering due to international economic dislocation following war could not have been avoided by management, however good. The situation was unique. England alone of the European Powers had developed her manufactures to some extent on what we call modern lines. During the wars she had accumulated also great stores of Colonial and American produce, which could only get into Europe with difficulty—by way of smuggling. In 1813, before Napoleon's first fall, her manufacturers and merchants were eagerly awaiting peace. In 1814 manufactures and Colonial produce were rushed over, only to find that, much as Europe desired them, it could not pay the price. It had not enough to give in exchange; and England, being rigidly protectionist, was not always prepared to buy even what Europe had to give. There was no machinery for international buying credits. Merchants shipped at their own risks, usually as a venture, not against a firm order as to-day, and they had to bear their own losses—often up to 50 per cent. Continental economic historians have hardly yet forgiven us for this "dumping," which both drained away the precious metals to England—as there was not much else to pay with—and did a great deal of harm to the struggling young factory industries, which had begun to grow up under the protection of Napoleon's anti-English commercial policy.

British exporters were so badly bitten in 1814 that, when peace finally came next year, after Waterloo, they were nervous of giving orders at home—which was very bad for the manufacturing industries and for the men who sought employment in them. There was the curious situation in 1816 that, while the price of wheat was rushing up, most other prices were falling, the bottom of the market being often reached at the end of the year, when the confidence of buyers and shippers began to revive.

Raw cotton, for instance, which had touched 2*s*. 6*d*. a lb. in 1813–14, fell to a minimum of 1*s*. 2*d*. in 1816—although Europe was open and cotton badly needed.

It is as yet too early to work out a parallel between this post-war commercial and industrial slump and the slump that followed the Great War of 1914–18, for we have not yet had it. But it is coming. More certainly, I am inclined to believe, in the United States than in England; but pretty certainly here also. I say more certainly in the United States because her position bears most resemblance to that of England in 1815–17. Consider that position. What before the war was, on the balance, a debtor country has become a creditor country. That creditor is equipped to export both raw materials and manufactures—iron and steel goods particularly—on a huge scale. It is true she is a heavy importer of some foods, such as sugar, coffee, and tea, and of certain raw materials, such as rubber, timber, and wool. But, owing to her tariff system and her general policy, she is reluctant to take many things which her debtors have to offer. Her recent "dry" policy, for example, has shut her markets to one of France's most valuable exports, an export with which France has always been in the habit of paying her creditors. Already, I notice, American business men are beginning to point out what English business men stated clearly in a famous document, the Petition of the London Merchants, a century ago—that the country which will not buy, neither shall it sell. This was the most solid of all free-trade arguments in the early nineteenth century, and it has lost none of its force. No doubt America is, and will be, glad to take part payment in gold, just as England was in 1814–16. But that is not a permanent solution. If she remains a creditor nation—and there is no present reason to think that she will not—she must in time arrange to take more goods from outside. Her political processes, however, are slow; and it seems unlikely that she will have adjusted her policy before the post-war slump is upon her.

The United Kingdom, which, on the whole, still takes freely what its customers have to offer it, is in a better position, provided its customers can go on offering. This may prove an important proviso. Customers who have been little hurt or even helped by the war—Spain, perhaps, or Egypt, or India, or New Zealand—should continue good buyers. But the uncertainty gives cause for anxious thought in the case of war-damaged nations, allied and ex-enemy. Modern financial and commercial organisations have postponed the critical moment in a way that was impossible

a century ago. When Europe was hungry in 1816 there were not food surpluses available anywhere on the earth, nor shipping enough on the seas, nor means of transport good enough on land, to relieve her need. If, *per impossibile*, there had been all these things, there would have been no country or group of business men anywhere ready to give her the necessary credit on a large scale. The Rothschilds, a young firm in those days, did something. They advanced money to a few German princes to buy corn for their people at the Baltic ports, for there was some corn to spare from Poland and Russia. But the huge food-financing operations of 1918–20 would have been as unthinkable as the actual handling of the foodstuffs would have been impossible. Had two harvests like that of 1816 come in succession, there would have been famine and food riots everywhere, past hope of cure.

Similarly modern finance is postponing the critical moment for the international trade in manufactures. British business men in 1919–20 have not, I believe, often sent their goods abroad in hope of finding a vent for them, and then been forced to content themselves with prices far below cost of production, as their grandfathers were in 1814–16. Every kind of financial device —long private credit, assistance from banks, credits given by Governments—has been called in, so that trade may be resumed before the war-damaged nations are in a position to pay for what they need by exporting the produce of their own labour. The more industrial the damaged nation is, the more complex is the restarting of her economic activity. Corn grows in nine months, and pigs breed fast. The start once given, countries like Denmark and Serbia, both of which are normally great exporters of pigs or bacon, could soon pay for necessary imports of machinery or fertilisers bought on long credit to restart their rural industries. The United Kingdom, the least damaged of all the combatants except America, is believed by the Chancellor of the Exchequer to be now rather more than paying its way. That may be sanguine, but at the worst our accounts are nearly balanced. What might not have happened in 1919 if modern methods for postponing payment had not been applied internationally? The other chief combatants are far from paying their way. Italy is importing abnormal quantities of food and also her necessary raw materials with the aid of American and English credits, while Germany, who can get little in the way of credit, has hardly begun even to import the raw materials to make the goods by the export of which she may eventually pay her way, not to mention

her indemnities. I have in mind such materials as cotton, wool, rubber, copper, oil-seeds, and hides—all of which she imported heavily in 1913. Some materials, of course, she possesses in abundance, but the working up even of these is hampered by her coal position. I make no political pleas: I merely illustrate the complexity of the restarting of industry under present-day conditions. France has the first claim to assistance in restarting, a claim which we all recognise; but for the comfort and peace of the world a universal restart is desirable.

The central problem is one which I can only indicate here, not discuss. Its discussion is for experts with full inside knowledge from month to month, and the answer varies for every country. It is—when will the inability of the war-damaged nations to pay for all that they want, in food and materials, in order to restart full economic activity, make itself felt by the nations who are supplying them, primarily, that is, the United States and ourselves? In 1814–16, when the problem was, of course, infinitely smaller because nations were so much more self-sufficing, the reaction came at once for lack of long organised credits. Conceivably, all other combatants might do in turn what we seem to have done—that is, adjust their trade balance within a reasonable period and so avoid renewal of special credits. In that case the post-war trade slump would come, not as an international crisis, but as a gradual decline, when the first abnormal demand for goods of all kinds to replenish stocks is over. Already this type of demand is slackening in certain quarters. We shall do very well if we have nothing worse than that gradual decline, which would be eased, in our case, by our extensive connections with undamaged countries, and by our willingness to buy most things which any nation has to offer. The situation would be still further eased if countries such as Germany and Russia were to develop in turn what might be called a reconstruction demand, to take the place of the satisfied reconstruction demands of our Allies. But the fear, as I think the quite reasonable fear, expressed in some well-informed quarters, is that, in view of the complicated and dangerous currency position in many countries, in view of the difficulty which the war-damaged nations have in collecting taxes enough to meet their obligations; in view of the slowness with which some of them are raising production to the level of consumption; in view of the complete uncertainty of the political and economic future in much of Central and Eastern Europe—that in view of these things, and quite apart from possible political disturbances, we shall have to go through a genuine

crisis, as distinct from a depression; a crisis beginning in the field of finance, when some international obligation cannot be met or some international credit cannot be renewed, spreading to industry and giving us a bad spell of unemployment, comparable with the unemployment of the post-war period a century ago, and more dangerous because of the high standard of living to which the people in this and some other countries is becoming accustomed.

Personally, I am less apprehensive for the industries of this country than are many whose opinions I should ordinarily be disposed to prefer to my own. A demand, an effective demand, exists for many things that we can supply in great regions outside the war area—in China, for instance, where there is said to be at this moment a keen demand for machinery which the United Kingdom is too much preoccupied with other work to supply. Nor do I fear that a crisis will originate here; as I am disposed to think that the position of our currency and taxation is already relatively sound. But we should be bound to feel the reactions of a crisis which might occur elsewhere; to what extent is, however, quite impossible to foresee.

One final comparison. An extraordinary feature of the great wars of a century ago was that they coincided with a steady growth of population, and were followed by a period of rapid growth. For the United Kingdom that fact is well known and not surprising. We lost relatively few men in war. But the official French figures, 27,500,000 in 1801 and 29,500,000 in 1816, are so remarkable that one is tempted to doubt the first enumeration. Though remarkable, the figures are, however, not impossible; and it must be recalled that the losses were spread over many years. British population has grown a little since 1914; in spite of separations of man and wife and our three-quarters of a million dead. A main reason has, however, been the suspension of emigration, which was proceeding at a rate of over 200,000 a year just before the war. France estimates a dead loss of over 3,000,000 (on 39,700,000) between 1913 and 1918 on her old territory. Her census is due next year. Comparatively early in the war the German *civilian* death-rate was above the birth-rate; so presumably she is in much the same position as France. But, owing to changes of frontier and continued unrest, it is as yet too early to estimate the total effect of the Great War on population. For Western and Central Europe it must, I think, have produced a considerable net loss. For Russia one can hardly guess; but her population is so largely rural and grew

so amazingly fast before 1914, that it would not surprise me very much to learn that, with all her miseries, it had been maintained.

The growth of population in Europe after 1815 coincided with the spread of the first industrial and agricultural revolution outwards from the United Kingdom. The world was learning new ways to feed and clothe itself; and it continued to learn all through the century. I myself do not suppose that the age of discovery is at an end, so our troubles may be eased as time goes on; and although I have not the slightest wish that population should ever again grow so fast as it grew in Europe during the nineteenth century, I see no reason why a moderate rate of growth should not be resumed, in a few years at latest. But perhaps I have already committed prophecy, or half prophecy, more than is altogether wise for the President of this Section.

J. H. CLAPHAM

THE INTERNATIONAL FINANCIAL CONFERENCE AT BRUSSELS

For many months before the date for which the Brussels Conference was originally fixed the Secretariat of the Economic and Financial Section of the League of Nations was preparing for the event. This Secretariat, consisting very largely of British officials with experience of the British Civil Service, worked in London, with headquarters at 117 Piccadilly, and, without attempting to form or even to influence opinion, collected and edited what the correspondent of the *Times* plaintively referred to as documents with an aggregate thickness of four inches.

The first of these documents to be published was the volume entitled *Currencies after the War*, which appeared in June, 1920. Originally intended for the first meeting of the Assembly and prepared when that meeting was expected to take place in November, 1919, this book was ultimately used for the purposes of the Brussels Conference, and was circulated to the delegates who met in September, 1920. It had, indeed, already attracted attention in many parts of the world: it was very freely quoted, for example, in the Federal Reserve Board Bulletin; and the Finnish Government thought it worth while to publish an (unauthorised) "supplement and correction" dealing with the case of Finland more fully than the original and perhaps more authoritatively.

Currencies after the War (published by Harrison and Sons) was an edited collection of replies furnished by financial authorities in various countries to a uniform questionnaire. "The intention throughout," says the Preface, "has been to present an objective statement of facts on which future policy must doubtless be based, but not in any way to criticise existing policies or to suggest the lines upon which future policies should be framed." But the Introduction, which summarised the conclusions to be drawn from a study of the twenty different memoranda as a whole, gives a distinct foretaste of the Brussels Conference. It states, for example, very concisely the dilemma which was to vex the Conference with regard to currency and credit. "Instability of currency helps to deprive these countries of the possibility of

obtaining credit, and lack of credit prevents the stabilisation of the currency." It anticipates a conclusion of the Brussels Conference when it asserts that "it would be useless to attempt to construct and put into operation a new currency system so long as the essential data are continuously and rapidly changing under the action of forces which would upset the equilibrium of any system, however perfect. In fact, it seems evident that something approaching currency stability must be attained before currency reorganisation by legislative action is attempted."

Fourteen other papers, prepared by or for the Secretariat of the League, were available to the Brussels delegates. A number of them contained simply information on matters of fact, collected from published sources and edited with a view to comparison, "Coal Statistics" (No. VIII.), for example, and "Public Finance" (No. IV.), in which a beginning was made in the extremely difficult task of reducing to a comparative form the budget figures of different countries whose fiscal practice and tradition vary in many different particulars. "Currency Statistics" (No. III.), though written without any preconceived currency theories, was much more than a mere reprint of the relevant returns. An attempt was made to provide data for discussing the relation between currency and prices: index-numbers, foreign exchanges, and gold movements were all taken into consideration and the available information on all these subjects was tabulated for comparison in a useful, and often rather original, form. "International Trade" (No. V.) and "Exchange Control" (No. XI.) tabulated trade returns and collated the regulations which in different countries have been applied to exchange operations. It is a distressing fact that No. XI. was the thickest of all the fourteen volumes. A summary of government measures for the provision of Relief Credits and for the promotion of export is contained in the thinnest of all the papers, No. X. The Communications Section of the Supreme Economic Council contributed a memorandum (No. IX.) on the European Transport Situation; and No. I. contained reprints of the Memorial on International Finance and Currency submitted by economists and bankers to their various Governments at the beginning of this year, together with the reply of the British Chancellor of the Exchequer and the retorts of Mr. Secretary Glass. The Economic Declaration of the Supreme Council of March 8th, 1920, was also reprinted (No. II.) and was frequently referred to by the Brussels Conference. It was the *point d'appui* from which the Conference started and to which in some cases it regretfully

came back, after deciding that, in default of practice, precept was perhaps better than nothing.

All these compilations were published by Messrs. Harrison shortly before the Conference met. But the documents which attracted most attention were those written from a definitely subjective standpoint and published by the League in the same form as the statistical material. Mr. G. Findlay Shirras was invited to prepare a memorandum (No. XIV.) on the price of silver, and five economists drew up and signed a joint statement (No. XIII.) on Inflation, Exchanges, and International Credits. The principles of this summary statement were elaborated by each of the five in his own way at greater length in separate documents numbered XIII. (1) to XIII. (5), which were widely read and freely discussed in the first weeks of September. Other "schemes for remedying financial difficulties," which had already appeared at different times and in different countries, were collected by the Secretariat of the League in their original form (No. XII.), among others, the scheme of M. Delacroix for an International Bank, the proposal of M. Hofman to establish a *Régie Financière* under the League of Nations, and a number of different suggestions relating particularly to Austria, including that of Dr. Vissering for the creation of a "gold note."

None of these fourteen documents attracted greater attention than the memoranda of Professor Cassel and Professor Pigou. The latter covered in fifteen terse, categorical pages the subjects of Credit, Currency, and Exchange. Given the existing conditions of political insecurity and currency instability, given also the inadequacy of the guarantees which can normally be provided, Professor Pigou sets out to examine the different forms which a credit scheme might take that was devised simply as an emergency measure for the intervening period until economic order is restored. He draws up a list of priorities according to which any funds raised under an international guarantee should be applied to the different purposes of reconstruction: for consumption loans, urgency and need, and for production loans, probable productivity in the *near* future must be the leading criteria of selection. "Essential food needs and needs for capital required to set existing capital working should in the general interest be satisfied before the needs for restoration and rebuilding of devastated areas." The conditions on which a grant from the international loan should be made are then considered, and Professor Pigou finds it necessary to impose some rigorous restrictions. In dealing with currency, he finds the source of evil

in public finance; but even if and when Governments have ceased to finance themselves by bank loans and the progressive rise of prices has consequently stopped, he sees no reason to anticipate the restoration of anything like pre-war rates of exchange. The next step, he suggests, should be to select and maintain a *centre* of parity—the currency still consisting of inconvertible paper, and wide fluctuations still being inevitable—by adjusting the volume of currency to exchange movements about this chosen centre.

Professor Cassel's memorandum was in many ways the most comprehensive of all the documents prepared for the Conference. Its subject was the "Monetary Problems of the World," and it proved interesting to so wide a circle of readers that when the time came for it to be used in Brussels the English version was out of print and no more copies were available. After describing the process of inflation, Professor Cassel went on to examine its effect on the value of gold, on commodity prices, and on the international exchanges, introducing at this point, and to some extent restating, his well-known theory of "purchasing power parity." He explained how, in his view, the exchanges come to deviate from purchasing power parity, and the effects of such deviations on international trade. His arguments met with less criticism when he went on to examine the means of stabilising the value of different currencies and the part played in this connection by government finance. Finally he faced fairly and squarely the problems of deflation, of the resumption of gold payments, and of international loans for reconstruction purposes.

The lucidity of his exposition and the clear-cut outline of his opinions made Professor Cassel's memorandum intelligible and interesting even to those who had no expert or technical knowledge of the subject. On many current problems he expressed himself forcibly and without compromise or ambiguity. He complained that recent developments in methods of taxation have seriously aggravated the economic situation by placing the burden more and more upon savings. He pronounced himself whole-heartedly in favour of the dear money policy. "In all countries the rates of discount of the central banks have been kept far beneath the heights which would have corresponded to the extraordinary scarcity of capital. . . . Such a policy always means a falsification of the money market" and, combined with the artificial creation of purchasing power, constitutes the process of inflation.

In regard to exchanges and prices, Professor Cassel pricked

a number of bubbles. "There is no reason to believe that exchanges will ever be restored, generally, to their old parities. . . . In a country where the depreciation of the monetary standard has not gone much further than the depreciation of gold [in relation to commodities], it will seem very desirable to uphold the old parity with gold. . . . A deflation within such reasonable limits is, *e.g.*, doubtless possible in England . . . but even this moderate aim cannot be attained without a deliberate policy . . . ready to apply the right measures and to face the sacrifices which they involve. . . . Every country should decide . . . what internal value it is going to give to its money, what amount of deflation it thinks proper and possible to attain . . . and the policy thus determined should be made public. Internally, this would make an end of all talk of a restoration of the pre-war level of prices." But, on the other hand, "it is now clearly in the interest of all countries endeavouring to stabilise their dollar exchange that the United States should *not* enter upon any monetary policy effectively raising the internal value of the dollar. . . . It seems . . . to be a common interest for the world to *prevent* gold from rising again in value. . . . To avoid this, it is necessary that all countries should abstain from measures for reintroducing an actual gold circulation." A consideration of the results which would follow any attempt to restore the old gold parity of English money by throwing a sufficient amount of gold on to the world's market "shows most clearly the futility of the usual policy of preparing a restoration of the gold standard by trying to acquire as much gold as possible."

The last section, on International Loans, is perhaps the most caustic of all. "A supply of capital from abroad . . . has to be provided by current production. The lending countries must have a surplus of production over their consumption and their own needs of fresh capital. Out of such available savings, produced day by day, loans for reconstructive work can be made, but from no other sources. . . . Now, if international loans can only be made out of real daily savings, we shall obviously have to abandon altogether the fantastic ideas of huge world loans, sufficient to make up at once for all damage caused by the war. We must accustom ourselves to look upon an 'international loan' as merely a form of financing an export surplus from the lending world to the borrowing. . . . Big loans to distressed countries necessarily involve that the lending country should sacrifice plans for development [at home]. . . . A natural expression for the higher importance of the borrower's needs is that a higher rate of interest is

offered. . . ." The memorandum ends by driving one more nail into the coffin of all schemes for discounting the indemnity. "There would perhaps be something to say for such a plan if full guarantees were given for the free economic development of the country responsible for the indemnity. . . . As a matter of fact, however, the prospects of a solution of the question on such lines are practically none. . . . The name of a firm which is admittedly crushed and ruined does not generally add much to the security of a bill."

No Conference was ever so well provided with documents as this one. A perfect bombardment of papers was directed from the Palais des Académies where the Secretariat was housed. The "official journal" of the Conference and the "verbatim reports" of the plenary sessions have now been published by the League of Nations. The Conference also had its own economic news-sheet, called the *Conference Forum* or the *Tribune Libre*, which was open to delegates and journalists, and provided a stage for those who, sometimes to their disappointment, had not been cast for the play. This daily sheet made its *début* with an anonymous reply to the contentions of the British delegation in favour of dear money—a question on which it soon appeared that Continental opinion and tradition were sharply divided from the British and Swedish school: that dangerous precedent was not followed, and in subsequent issues anonymity was abolished as being inconsistent with sincere co-operation. The Conference was peculiarly sensitive to public opinion. Financiers and economists might have been expected to be comparatively indifferent to their own reflections in the distorting mirror of the public press. But in this case they were at least as interested as politicians might have been, and a summary of Press opinions was published daily, first on a special sheet and subsequently in the pages of the *Conference Forum*.

The material before the Conference on which to base its judgment was therefore ample. Not only the fourteen preparatory documents, the financial statements of the different nations, and the current comments of public opinion, but the introductory speeches of the four vice-presidents who initiated the general debates, and more often than not the speeches of individual delegates, were circulated to every member. If the physicians failed to diagnose the disease, it was certainly not to be for lack of symptoms or of expert evidence.

A despairing world will clutch again and again at the most unsubstantial straws; and it is perhaps not to be wondered at that many expectations of what the Brussels Conference was

destined to achieve were wildly exaggerated and necessarily doomed to disappointment. A Spanish journal had said that the Conference "promises to be of the greatest importance on account of the practical suggestions which will be made there to bring about a general decline in prices." A great Swiss bank spoke of the necessity of "finding a means of stabilising exchange" and of "arriving at a definite settlement of the question of indemnities" (which had been deliberately ruled out of the Agenda altogether). The German Press apparently dreamed that "a great external loan to provide Germany with foodstuffs and raw materials" would be considered. But these expectations were never shared by responsible opinion in England. Sir George Paish apparently thought it just possible that the Conference would "succeed in drafting a workable plan for overcoming the economic and financial difficulties which the war has left behind"; but the general opinion was a little less hopeful. The monthly circular of the Bank of Liverpool and Martins correctly interpreted British anticipations when it recognised the "formidable difficulties that face the Conference if it tries to suggest any practical scheme of amelioration." The *Economist* hoped and believed that this "conference of highly distinguished gentlemen" would "produce some very beneficial results, though perhaps rather on the negative side"; and it then proceeded to sketch a modest programme, the greater part of which was, in fact, carried through in the event. It was noticeable that the Conference had no immediate effect upon the foreign exchanges; most international gatherings of any importance in the previous eighteen months had been accompanied by fluctuations in exchange-rates which were, rightly or wrongly, attributed to their influence. On this occasion nothing happened at all; and this was perhaps legitimately to be interpreted as an indication of the rather sceptical attitude of the financial public.

The organisation of the Conference was not elaborate. If there was any overcrowding, it was rather in the delegations than in the Secretariat. Apart from the staff necessary for the more or less mechanical work of translating, filing, duplicating, and recording, there were scarcely a dozen officials to do the secretarial work and the organisation. Many delegations, on the other hand, brought their own secretaries and advisers, with the result that the more constructive work of drafting and of distributing the emphasis of attention and discussion was very much decentralised. It rested, even more than usually, in the hands of individuals. Whether by accident or design, the influence of the League was not in any way a restricting influence, and the policy of giving

the Conference plenty of rein was completely justified in the event. Those who had become accustomed to over-organisation on these occasions were sometimes apt to mistake this more liberal policy for disorganisation. But it is to be hoped that the experience of Brussels will encourage the central organisation of the League, without by any means abdicating its authority, to efface itself again in similar conditions; and it is perhaps legitimate to claim that the organisation of the Brussels Conference was a success for British methods. A French journalist complained that in the Palais des Académies one must speak English in order to be understood!

When the Conference met for the first time in the Chamber of Deputies on the afternoon of Friday, September 24th, thirty-nine nations were represented, each by two or three delegates. Very few of the representatives were either politicians or diplomatists, but fewer still were representatives of Labour; many were men with practical experience of business, unaccustomed to speaking to a large assembly from a rostrum. The official languages of the Conference were French and English; and a determined attempt was made to add Spanish to the number. If this attempt had been successful, the proceedings of the Conference, already awkward and difficult, would have broken down completely.

It was originally intended that the first ten days should be devoted entirely to hearing the financial statements of the different countries. For the first morning sitting Denmark, Holland, Norway, Spain, Sweden, and Switzerland were on the programme. A delegate from each country was required to ascend the "tribune" and to read, in French or English, to the assembled Conference, a statement which had, as a rule, already been circulated to the delegates, and presumably read by them, in advance. Not unnaturally, this proved intolerably tedious; especially as the platform voices of bankers and financiers are usually untrained, and their command of French or English, even if it were always perfect, would still fail to make them intelligible to a fair proportion of such a thoroughly international audience. Consequently, when the first few doses of financial statements in plenary session had been administered, a movement was set on foot to cut short this part of the programme at once, to have the relevant papers simply "laid on the table" and distributed, and to proceed to the debate of the four main questions before the Conference—Public Finance, International Trade, Currency and Exchange, and Credits.

This movement encountered a surprising amount of resistance.

Many of the smaller nations were determined at any cost to make their *exposé* before the whole Conference orally. From motives that are easily intelligible, they were in favour, from first to last, of binding down discussion to the particular instead of allowing it to float away into the general. In the event they carried their point. No restriction was placed upon the recitation of financial statements, though delegates were encouraged to circulate a document and to confine themselves in their speeches to elucidation or elaboration of the printed text. In fact, however, they preferred, very often, simply to read aloud what the delegates had before them in print, and scarcely more than half a dozen speeches were made *ex tempore* throughout the Conference.

Some concession, nevertheless, was made to those who wished to see the public debates on the four great topics initiated as soon as possible, and to hasten the time when the Conference resolved itself into Committees. After the first week-end these debates went on concurrently with the financial *exposés*. On Monday, September 27th (that is, on the third working day of the Conference), Mr. Brand introduced the subject of Public Finance; and it was arranged that by the end of the week all the Committees of the Conference would have been constituted and would have set to work.

As it turned out, this procedure suited the Conference uncommonly well. Those who were in such a hurry to "get to business" realised later that the actual business of the Conference was not, and could not be, momentously important; and even if it had been possible to devise some great practical scheme or to discover some effective cure for the economic evils of our time, it was not by brusquing matters in the first few days that this object could be achieved. The Conference required the first week to itself in order that it might have the opportunity to find its feet; and the work of the second week was all the more smooth and successful because of that apparent fecklessness that made journalists talk of "wasting time." Before the Conference was half over practically all the chief Press correspondents—with two outstanding exceptions—had gone away in scarcely veiled disgust and left subordinates to report the tiresome proceedings. The Press as a whole failed to see more than the mere surface of things and missed the significance of events almost altogether.

Of course, very few people listened to any large proportion of the "financial statements." But during the period in which those statements were being made, the whole tone and prospects of the Conference were changed. The President, M. Ador, spoke

later of the corporate personality which the Conference, in the course of its labours, had evolved; he did not add, what everyone who heard him understood very well, that when the Conference first met, nothing seemed more unlikely than that such a heterogeneous assembly could, in so short a space, be fused together into one conglomerate whole. Yet the impression of all those who were present was that the success of the Conference lay precisely in this, that, having started with doubts and suspicions and insincerities, it ended in a genuine spirit of harmony and co-operation which even those who had been most cynical and least straightforward were prepared to acknowledge and respect. The happy accident which permitted the Conference to "waste its time" for ten days, instead of plunging headlong into Committee work, was the chief cause of its succeeding as an experiment in international co-operation instead of failing in the impossible *rôle* of *deus ex machinâ* which had been assigned to it.

It is easier to imagine than to describe the precise means by which this great change was effected. The courtesy of the Belgian Government in placing the Chamber of Deputies at the disposal of the Conference had a good deal to do with it. For the lobbies and the long reading-room, the library, the tea-room and smoking-room were ideal places for appearing to "waste time" while really "getting to business" far more usefully than if the enthusiasts who interpreted too literally the functions of the Conference had had their way. After all, a hundred people had to get to know one another; they lived at fifteen or twenty different addresses, in legations, hotels, or private houses all over the town, some at the bottom and some at the top of the hill on which Brussels is built. But they got together assiduously, dined conscientiously in parties of four and five and six, turned to good use the midday intervals in order to eat corrosive luncheons and struggle manfully with the international patois of French and English; in fact, at the end of ten days, with nothing whatever to show on paper, they had none the less assured the success of the Brussels Conference. And in this account we have passed over in discreet silence those more serious and delicate interviews where individuals were understood to represent their Governments and things were said which were not to be repeated, but which never could have been said at all unless the nations of the world had been gathered together under the auspices of the League to talk business. In retrospect, even the insufferable, but no doubt necessary, system of interpretation, which, as a year before in Paris, dragged out the proceedings to a hideous length,

may seem almost to have been a blessing in disguise. It meant that for at least half the time the most industrious delegate might fairly consider himself free.

In the course of the first ten days the four Committees were constituted in accordance with the compromise programme. But the moment of constitution of a Committee did not by any means actually mark the beginning of its labours. During the first few days the delegates were sorting themselves out, and it was soon quite well understood who would be the leading figures in the different topics. Naturally, then, those who were interested in the same question got together and compared ideas, even to some extent formulated conclusions, in anticipation of the official raising of the curtain. It is necessary to insist upon this point in order to dispel the illusion that the decisions of the Brussels Conference were the result of a few hours, or of a few days, of hectic work in which rush tactics succeeded in foisting on to the Conference a whole series of conclusions and proposals which the delegates had no leisure to consider.

None the less, it is true that time was very short; and the only known method of expediting work on such an occasion is to reduce the number of participants. The Committees were therefore formed originally with something like thirty members apiece; but these unmanageable bodies were immediately reduced at the first meeting of each Grand Committee by the appointment of a Drafting Committee, to which the actual work of preparing the report was entirely delegated. Not unnaturally, perhaps, the group of countries represented on the Drafting Committees was in each case very much the same. In fact, on the four Drafting Committees, consisting together of forty-four members, eight countries had twenty-nine representatives. A delegate from one of the new States asked, rather wistfully, at the first meeting of the Currency and Exchange Committee whether there might not be some advantage in appointing to the Drafting Committee some representatives of the countries whose position was most precarious.

But even these Drafting Committees were, in some cases, not sufficiently compact if the report was to be ready in time. In the case of the Credits Committee, for example, four members were nominated by the Drafting Committee to give shape to the opinions which had emerged in discussion; and the report as eventually adopted was drawn up by these four members, none of whom was the "father" of any particular credits scheme. That draft stands, with only verbal modifications, in the final report

of the Conference, having passed practically unscathed within forty-eight hours through the Drafting Committee, the Grand Committee, and the Conference itself. In no case did the Plenary Conference make any change whatever in the reports submitted to it by the four Committees. They were all "unanimously agreed."

The tactics of this Committee work might seem perhaps a little high-handed if they had not been inevitable. The function of the Conference as a whole, after all, was to agree; and if they succeeded in agreeing at all, in private as well as in public, they fulfilled their purpose. As has been shown already, they did in the end agree fundamentally, and the fact that their unanimity on the terms of the report was a little artificial does not alter the importance and the value of their agreement in less specific and obvious ways, which was spontaneous and genuine. If the reports are examined carefully, they will be found to contain, among a number of generalities which anyone could accept, a few unqualified decisions on questions which, besides being difficult and controversial, are also of great practical importance. The Conference did not always sit on the fence.

The report of the Committee on Public Finance could scarcely be very exciting; it could never, in the nature of the case, descend to particulars. But it contrived, indirectly and by allusion, to level some telling criticisms against current fiscal methods. "Nearly every Government is being pressed to incur fresh expenditure, largely on palliatives which aggravate the very evils against which they are directed"; and those palliatives are defined later, by implication, as "the execution of social reforms which the world demands," but which are inopportune and ineffective so long as budgets do not balance. The first social reform must be a financial reform (§ 3) and involves the abandonment of all *unproductive* extraordinary expenditure. "On an average, 20 per cent. of the national expenditure is still being devoted to the maintenance of armaments and the preparations for war. . . . The world cannot afford this expenditure." And in order to make the world realise that it cannot afford armaments, Governments should abandon "all uneconomical and artificial measures which conceal from the people the true economic situation. Such measures include the artificial cheapening of foodstuffs and the maintenance of rates and charges for Government services on a basis which is insufficient to cover the cost of the services given, including annual charges on capital account." Progress in these and other directions should be made public, and complete figures

should be furnished to the League of Nations for a six-monthly publication, showing in comparative form the extent of the efforts really being made in different countries. "A country which does not contrive to attain the execution of these principles is doomed beyond hope of recovery." There is not much hesitation or meiosis about these pronouncements.

The Currency and Exchange Committee submitted a reasoned report, leading step by step to sixteen somewhat Utopian recommendations. But here, again, it is not difficult to sift the definite and practical conclusions from the remainder. "Banks, and especially banks of issue, should be freed from political pressure." So far from being behind the times, the Conference may well prove to have been ahead of them in laying down this principle. The extent to which the control of monetary policy has shifted, for example, from the Bank of England to the Treasury, and the consequences of this war-time development that, like so many others, survives in peace, are not yet very generally appreciated. The Chancellor of the Exchequer is a member of the Cabinet, and he cannot always be swayed exclusively by those considerations of sound finance which, according to the Brussels Conference, and almost everyone else, ought to be decisive in determining the use of the ordinary financial controls. "In normal times the natural and most effective regulator of the volume and distribution of credit is the rate of interest; . . . we see no reason why the Government should be less subject to the normal measure for restricting credit than the individual members of the community. . . . When the Banks of Issue are able successfully to perform their normal functions rates will find their own proper level."

Passing from inflation and its remedies, the Committee then deals with the allied subject of exchange. "Exchange control is futile and mischievous"; this downright statement has already borne fruit if, as is very possible, it had something to do with the removal of exchange control in Finland soon after the Conference dispersed. "We believe that neither an international currency nor an international unit of account would serve any useful purpose." With this one thrust the air was cleared of a number of bubbles that had not, until now, effectively been pricked. "We cannot recommend any attempt to stabilise the value of gold," and "it is useless to attempt to fix the ratio of existing fiduciary currencies to their nominal gold value." This latter assertion, taken in conjunction with the conclusion (§ 8) that "it is highly desirable that countries which have lapsed from

an effective gold standard should return thereto," has been interpreted as a recommendation in favour of deflation and against devaluation. There is little in the actual terms of the report to warrant this interpretation. The reason given for not attempting at present to ascribe a fixed gold value to depreciated currencies is that it would be impossible to maintain any fixed ratio until economic conditions have been stabilised. Once having arrived at comparative stability by putting an end to inflation, a country with a depreciated currency would have the choice of devaluating or deflating, as is implied in § 10, which begins with the words "deflation, *if* and when undertaken, must be carried out gradually." It is true that the preceding paragraph states that if economic conditions were sufficiently favourable to admit of a fixed ratio with gold, the fixing of such a ratio would be *unnecessary*. But the Committee probably meant no more than that stability would *imply* a fixed ratio and that whether this ratio were adopted and admitted or not would make very little difference. Each country would still be free to attempt to return to the pre-war standard or to accept the new ratio at which it had proved possible to arrest depreciation.

The text of this report has been published in pamphlet form by the *Times*.

The Committee on Trade was a failure. It had not the courage to face the facts or to acknowledge the conflicting interests involved. It merely produced six impeccable resolutions, the third of which reaffirms, though in very guarded language, the objections which had already been expressed in the economic manifesto of the Supreme Council against artificial trade barriers and price discrimination. However much the language of the resolution was adapted to the susceptibilities of those concerned, it was, of course, an easily recognisable allusion, in both cases, to the parochial outlook and mischievous policy of the new States of Central Europe towards one another. It may also seem to contain an allusion to ourselves.

The Federation of Swedish Industries has recently taken one step further the question of price differentiation by petitioning the Swedish Government to try and obtain general recognition, through the League of Nations, of the principle advocated at the Brussels Conference. (The *Times*, October 30th.)

The Credits Committee presented a long report which falls naturally into three divisions. The first consists of a series of general resolutions in the approved style, covering much the same ground as the other reports, and insisting on the importance of

restoring peace and order, regulating public finance, purging currencies, and so on. The last of the three parts consists of one section welcoming the new spirit of co-operation under the League. The rest of the report (§§ 8 to 12 and the Annex) enumerates the different concrete proposals that have been made and details one of them—the credit scheme of Mr. Ter Meulen, the well-known Dutch banker. It is an amusing exercise in textual criticism to disentangle from internal evidence the parts of this report which were originally drafted in French from those which appear obviously in the original English. The results lead one to think that the British contribution was satisfactorily important.

The international credits scheme of Mr. Ter Meulen has been welcomed as the one "practical" result of the Conference. The opinion is disputable, but at any rate the scheme deserves to be considered in some detail. It had existed in embryo long before the Conference met, and it is no secret that Mr. Ter Meulen came to Brussels with some twenty-five or thirty type-written sheets in his pocket, representing the result of his prolonged and careful work. In fact, before the Credits Committee was in existence, this scheme had been reduced to a manageable summary of six pages, and was ready for distribution. Finally, at the first meeting of the Drafting Committee on Credits, it was circulated substantially in the form in which it appears in Annex I. of the Committee's report. In its final shape it has been printed in full in the *Economist* for October 23rd, and in the "Report of the Conference," published at a shilling by the League of Nations. It is a little unfortunate that it should have been given to the world in this stark form, drawn up in thirty-six categorical clauses like a protocol, without a word of explanation. It has been exposed in this way to criticisms which had, as a matter of fact, been considered and answered in advance, and many of the objections to it which have since been made were not by any means due to faulty preparation, but had been fully weighed and realised before the proposal was ever put into shape. With the permission of Mr. Ter Meulen, the original document in which he approached the problem from every side has been made the basis of the following exposition.

The scope of the scheme is deliberately narrow. The question of discounting indemnities or stabilising the exchanges is purposely set aside, because it only serves to introduce additional complications. Other credit schemes have been more ambitious and grandiose, but only at the cost of being impracticable. Simi-

larly, the intention is to interfere as little as possible with the existing mechanism of trade. Nor does the scheme involve for borrowing countries the immobilisation all at once of a large part of the security which they have to offer. At the same time, lending countries are not required to find large sums of money at short notice, nor to place at the disposal of borrowing Governments a fund which, in the exhilaration of sudden affluence, those Governments might misuse. These appeared to be the prerequisites of any useful and practicable scheme; but at the same time they have the effect of restricting its scope within comparatively narrow limits.

The primary purpose of the scheme is to provide guarantees which will inspire exporters with such confidence in the prospects of ultimate repayment that they will initiate trade on credit with the distressed countries through the ordinary channels and in the normal way. The exporter is not to be relieved of risk to such an extent that it becomes a matter of indifference to him with whom or on what terms he trades; on the contrary, the necessity of his satisfying himself as to the status of his purchaser will be precisely as great as it is now. But it should prove possible by means of guarantees to restore confidence to this extent at any rate, that in some cases and on certain terms an exporter would be willing to give credit, instead of being inclined, as he often is now, to regard fully one-half of Europe as being inevitably beyond the pale of commercial intercourse on pre-war terms.

It is no use blinking the fact that "satisfactory guarantees" means in these days and in these cases "specified revenues" ear-marked, and indeed appropriated, to this particular use. They must be "specified" because the mere bond of a necessitous Government, or even a kind of consolidated fund charge upon their Budget, would not seem satisfactory; and they must be "revenues" because exporters are not likely to accept as guarantee a mortgage, say, on the factory of the importer or the title-deeds of a syndicate of mill-owners. At the very outset, therefore, the conflict between dignity and financial necessity emerges as a source of difficulty. New countries will not readily sacrifice even the appearance of their hard-won freedom; others will not afford so far to demean themselves as to surrender the control of a portion of their revenues. Since the pride of nations is apt to vary with their poverty, a chorus of protest immediately arises among the very people whom it is intended to benefit. "This is simply the application of the Turkish system to Western

Europe; there is scarcely another parallel than the case of Chinese customs." Nor are these protests overcome when it is pointed out that in a dozen different cases or more the principle has been accepted long ago and has worked with perfect smoothness; or that if the surrender of specified assets were always a mark of financial decay we should not expect to find the system in Egypt, one of the richest countries in the world.

The Committee on Credits was alive to these objections; indeed, it was compelled to listen to a very forcible presentation of them. But, being composed of financiers and not of politicians, it was more impressed with the necessity than with the difficulty of providing adequate safeguards. The scheme adopted consequently provides for the creation of an International Commission which will normally control and administer the assets which Governments are prepared to pledge for the sake of obtaining imports on credit for themselves or for their nationals. But the greatest care was taken to leave the initiative entirely with the Governments concerned. The international organisation will be "placed at the disposal of" borrowers. A Government which wishes to participate will approach the Commission and simply specify the security which it is prepared to pledge. The Commission will then examine the security and name the gold value of the credits that it would be good business to open against these guarantees. The Government must now judge for itself whether the game is worth the candle, and in the event of acceptance it will forthwith prepare bonds with a currency of five or ten or possibly fifteen years and bearing a rate of interest which would be determined in agreement with the Commission. The principal and interest of the bonds would have to be payable in the currency selected in each case by the exporter, and as this currency would vary according to the particular transaction in respect of which the bonds were ultimately issued, it would have to be left indeterminate at the time of their preparation. Having prepared the bonds, the Government concerned would be in a position to *lend* them to its nationals, and would usually require from the individual importer some kind of security —perhaps a mortgage—against the loan of the bonds. The importer who borrows the bonds in this way from his Government, in order to use them as collateral, is left entirely free to fix up with the exporter with whom he is dealing the terms of the credit which he requires; and those terms need not correspond, either as to the rate of interest or as to the period of the credit, with the rate or the maturity of the bonds themselves. But before the

bonds can be issued and lent by the Government to the individual importer, they must be countersigned by the International Commission, as evidence that the particular transaction in respect of which they are issued has been approved by that authority. The Commission must have absolutely unfettered judgment as to the necessity of each particular import and as to the propriety of the term for which the credit is to be granted. There is nothing to prevent the issuing Government from importing on its own account under the scheme, subject to the same conditions.

When the bonds have been issued they are sent by the importer as collateral to the exporter, and if the terms of the credit arranged between them are faithfully observed the coupons are returned at their due date, and the bonds themselves on the final repayment of the credit, to the importer, who in his turn returns them to his Government against release of any security that he may have given. The bonds are then cancelled; and other bonds to an equivalent amount, if necessary in terms of a different currency, can then be issued for any new transaction that may be approved by the International Commission.

These are the broad outlines of the scheme; but the details of its practical application had also been thought out with great care by Mr. Ter Meulen. The scheme itself, there can be no doubt, will stand or fall by its broad, essential principles. If these can be accepted and applied, the details of the operation of the sinking fund, the legal difficulties which attend the repledging of the bonds by the importer, and all such minor questions, however complicated and thorny they may be, must in the end be susceptible of adjustment. It would be a mistake at this stage to divert attention and discussion from the main principles, and no more need be attempted here than to enumerate some of the many practical and technical considerations which have already received attention.

In the event of everything going well, that is, if the importer lives up to the terms of his credit with the exporter, no difficulty arises. Everything goes on just as it goes on now, except that the collateral which by this scheme the importer is enabled to offer should stimulate trade by inspiring intending exporters with the confidence that they will eventually be paid in full. No provision for the payment of coupons or for the redemption of bonds is therefore required except in case of some default. In the event of default by the importer, the exporter is required first to offer the collateral to the issuing Government against payment of the whole sum due to him. Only in the event of this offer

being refused would any of the bonds come on to the market, and even then the exporter might prefer, instead of selling the bonds, to hold them until maturity. The need to sell bonds should be so exceptional that Mr. Ter Meulen anticipates that collateral which is sold out would, as a rule, be redeemed by drawings within six months, out of the surplus yield of the revenues pledged for the bonds, over and above what is required for the payment of coupons and the provision of a sinking fund.

This sinking fund need not be more than sufficient to provide for the redemption at maturity of about 10 per cent. of the bonds at any time issued. For even in the event of importers defaulting in such large numbers that their Government was not in a position to redeem at maturity all the bonds outstanding, the assigned revenues, which would be released at the end of the period of operation of this scheme, could serve as collateral for a loan to be raised by the Government concerned, and the proceeds of that loan could be used for taking up the balance of the outstanding bonds.

Two very complicated and difficult questions arise at this point. It will be necessary to determine the proportions in which the funds required for the endowment of the sinking fund are to be distributed between the various exporting countries by the International Commission; and since the proper proportions will be continually changing, the Commission will necessarily operate on a large scale in the exchange market. Secondly, the assigned revenues may result in the transfer to the Commission of larger sums than are actually needed for coupon payments, for sinking fund, and for the redemption of such collateral as may be sold out. It would be reasonable and fair that the excess should be restored to the Government concerned, for the redemption of debt; but the uncertainty, until the very end of the period of the scheme, as to the total amount of credit risks that may have to be covered —as to the extent, in other words, to which the amounts sanctioned will eventually be made available—makes it difficult, if not impossible, to release any portion of the assigned assets periodically. In fact, it does seem that the security immobilised as a guarantee for credits will in practice be unnecessarily and inconveniently liberal in proportion to the credits actually granted.

Any credit scheme is, perhaps, to *some* extent inflationist, but objections to Mr. Ter Meulen's proposal on this score are not very well founded. For the scheme involves only so much inflation as is required by *any* commercial credit transaction, and the most elaborate safeguards are provided for ensuring that the

term of the credit shall in each case be appropriate to the transaction, and that the most profitable and self-liquidating transactions should have preference. "Essential" imports are selected by the International Commission, and the majority of credits sanctioned may be expected to be short-term credits. Only in the event of a very necessitous Government requiring to import foodstuffs for immediate consumption or railway and other material for capital development need the credits be extended over a period of years.

The exchange difficulty arises again on account of the fact that the International Commission will fix the amount of credits to be sanctioned in terms of gold, whereas the bonds will be made out in terms of currencies which in many cases have lost their gold moorings. Mr. Ter Meulen answers this objection by stipulating that the Commission, when fixing the total gold value of the credits to be accorded to a country must leave a large margin between this gold value and the value of the guarantees tendered, thus safeguarding the bonds against a possible improvement in the value of the currency of the lender in relation to gold.

Enough has perhaps been said to show that Mr. Ter Meulen's scheme has been worked out in far greater detail than would appear from any of the published statements of it. Most of the practical difficulties—many others, indeed, besides those mentioned here—have, in fact, been envisaged, and a suggested solution is ready if the principles of the scheme should gain acceptance. But here again, *c'est le premier pas qui coûte,* and the first step is to be taken by the Council of the League of Nations, who have been invited to accept the principles and proceed forthwith to "nominate a Committee of financiers and business men for the purpose of defining the measures necessary to *give practical effect* to this proposal." Before practical effect can be given to the scheme it will be necessary to arrive at some decision as to the validity of the fundamental objections which are made against it—and, indeed, against any other scheme of this type. The chief of these objections appear to be as follows :—

In the first place, it may be said, the chief limiting factor on the present credit situation in Europe is the scarcity of capital in relation to the need for credit. This involves a dilemma which no amount of ingenious drafting will get round; either credit must be rather restricted than extended, or there must be further inflation, and the chief lending countries are determined to inflate no further. All that a credit scheme can therefore do is to divert a part of the inadequate supply of credit from

existing channels; and if this is what is intended, it is necessary first of all to realise that the scope of any credit scheme is thereby very rigorously restricted, and in the second place to prove that the credit scheme can justify itself by evidence that the new uses which it is proposed to make of such credit facilities as exist are more profitable and desirable than the uses to which marginal credit is at present being put.

Secondly, it is urged that if the scheme is devised only for the smaller and more indigent countries, if it has nothing to offer to Belgium and Italy, and possibly even Poland, it may be good so far as it goes, but it necessarily misses the mark. For the problem of, say, Lithuania is not a problem that can be treated in isolation: it is the problem of Russia and Germany and Poland and of all those greater neighbours who are in equal need of treatment. To foster trade with Latvia when the great States of Western and Eastern Europe are left in their present economic condition, is like carefully tending and cultivating a little garden in the middle of the desert.

Finally, it is said that what traders are afraid of is not the default of an individual or even the present poverty of a country, but the danger of a real economic or political catastrophe. The fear of war, anarchy, repudiation, or a complete breakdown of the economic system is the real deterrent, and no security that the countries concerned can possibly provide is beyond the reach of these calamities.

These fundamental economic objections are backed by others that have to do with the politics and the psychology of nations. It is not intended to answer them here except by saying that Mr. Ter Meulen's scheme is not ambitious because it sets out to be, above all things, practicable; it suggests no panacea, but it suggests a first step, a beginning, if you like a palliative, in the hope that if this or that small country were content to try the scheme, the results would encourage others to do the same, and in course of time we should see a progressive improvement in the economic conditions of those parts of Europe which are to all intents and purposes for the time being out of action.

Various other proposals were laid before the Credits Committee and were accepted as suggestions which it would be worth exploring further. Mr. Wallenberg was impressed by the success which had attended a scheme by which, during the war, a special insurance corporation, financed by the Swedish Government and run for the account of the State, but managed entirely by business men, had maintained maritime trade at a time when Swedish

shipping was threatened with immobilisation on account of the difficulty of covering war risks to vessels and cargoes. He believed that individual traders are now often inclined to exaggerate the risks attendant upon credit transactions with the Continent of Europe, and he therefore proposed the foundation of a corporation in London for the insurance of international credit risks. This suggestion was intended to supplement, and not to supersede, the proposal of Mr. Ter Meulen. It is now being further discussed by those who have a practical knowledge of insurance.

A further supplementary suggestion was made with the intention of adapting the Ter Meulen scheme to the needs of distant countries, such as America, China, India, and Japan. The only bond, it was urged, which will be of real use in such cases is a bond which will be accepted at about its face value by banks as collateral, and which can be realised on international markets. Therefore, instead of being sent to the exporter, the Ter Meulen bonds should be delivered to the Central Commission, who would retain them as collateral and issue in their place a bond of their own secured on a guarantee fund subscribed to by all buying and selling nations, or other bodies, who wished to participate in the scheme. This proposal, made by Sir Marshall Reid, appeared in effect to introduce into the Ter Meulen scheme the principles of the plan elaborated by M. Delacroix and printed in the collection of "Solutions Proposed" (No. XII. of the series of League of Nations publications prepared in anticipation of the Conference). Several other suggestions were submitted in writing to the Committee on Credits, and it is perhaps regrettable that a more complete selection of the documents laid before the Conference should not have been published by the League of Nations.

The meetings of all Committees were held in private, and Mr. Ador made a special appeal to the Conference not to prejudice the progress of the different Committees by any premature disclosure of their proceedings. As a rule, no official minutes were kept or circulated. Consequently, a very important declaration made in the Credits Committee by the British representative has escaped general notice, though it made a profound and very favourable impression at the time and was carefully repeated and then translated for the benefit of those concerned. Mr. Bell said, in substance, that after consultation with his colleagues of the British Delegation, he agreed with them in believing that, in the event of a credit scheme on the lines of Mr. Ter Meulen's proposal being put into effective operation, the British Government, in spite of the fact that it is the largest European creditor, would

probably be disposed to give some priority to international credits for the revival of trade.

Even in retrospect the Brussels Conference looks like a great event. Absorbed in the details and the excitement of hard work —for these Conferences all do involve hard work, and in this particular case delegates and officials were often at work until two or three o'clock in the morning—one is apt to exaggerate the importance of the task and to see it out of perspective with the world outside. But the process of disillusion which usually follows has not been so marked on this occasion, and it is not to be supposed that in the course of a fortnight universal agreement was really reached on the questions of financial policy and principle that have divided the theory and practice of the Continent from our own for generations. There is, of course, no unanimity on monetary policy, on banking principles, or on the economics of trade and commerce, and the quintessence of wisdom contained in the Brussels reports could often only command assent because it had been very carefully distilled. The results of the Conference are, of course, not very concrete. But it is at least an achievement to have secured practically universal recognition for the economic solidarity of Europe. Until now, little more than lip-service has been rendered to this obvious truth. In future it may be hoped that, as a result of Brussels, practice will tend more often to correspond with precept; for there can be no question that even those who were comparatively well instructed on the chaotic conditions of currency and finance were impressed and appalled as a result of a fortnight's contemplation of the details. Some countries, it is safe to say, were frightened; and that is all to the good.

Some of those who had looked for a panacea persisted even after Brussels in their delusion. A correspondent of the *Morning Post* (October 28th) wrote that: "Notwithstanding the Brussels International Financial Conference found no practical immediate solution to the many economic evils now restricting the resumption of international trading on pre-war volumes, it is obviously imperative that some solution should be found as soon as possible." He was gently taken to task by the Financial Editor for his extravagant hopes, but he erred in good company: for Dr. Wirth, in his recent financial statement to the Reichstag, "began his speech with a complaint against the result of Spa and Brussels. The Brussels Conference, he said, has been likened to a conference of doctors round the body of a sick man. But it was of little use for the doctors to find out what was the matter with

him if they did not prescribe for his return to health" (*Times*, October 28th).

These impatient views do not do justice to the difficulties of a situation created by four and a half years of actual war and two more years of nominal peace. It is more reasonable to emphasise the point which was brought out by an Austrian economist with reference to the economic declaration of the Supreme Council. "The twelve paragraphs," he said, "read like the conscientious work of a Treasury official . . . but what deserves attention is that the manifesto looks upon the European economic situation as one complete whole, and that at last the intimate connection between the different parts of this whole would appear to have gained recognition" (*Mitteilungen des Verbandes österreichischer Banken und Bankiers*, April 30th, 1920, pp. 51, 52). The same might be said of Brussels, and more still. Not merely a recognition of the facts, but a realisation of the imminent calamities which threaten Europe unless that recognition can be translated into practice, forced itself upon the Brussels Conference. The results of the Conference are not the resolutions and the reports, but the temper in which the delegates returned to their homes and the effect which this temper must have upon the course of events in future. They returned in fear and trembling, and at the same time with confidence unexpectedly renewed on account of the spirit of sincere co-operation which inspired the Conference and which seemed to promise the success of the new methods inaugurated by the League. It is to be regretted that the participating countries were not invited to include one representative of Labour in each delegation. If the co-operation and assent of Labour had been secured, the Brussels Conference might have been welcomed as the first sign that European countries may yet cease to compass their own destruction.

H. A. SIEPMANN

SOME PROBLEMS OF FOREIGN EXCHANGE

In one of the documents prepared for the Brussels Conference the Secretariat of the League of Nations have published tables (which can be carried on to other months with the help of the Supreme Council's *Monthly Bulletin of Statistics*) showing the recent fluctuations in external and internal wholesale prices in terms of various national currencies. The tables are constructed as follows: The internal prices of France, Italy, the United Kingdom, Canada, Sweden and Japan are represented by index-numbers prepared in these countries, the number for 1913 as base-year being put at a hundred. External prices are taken to mean the prices, in terms of French, Italian, or other currency, of goods in the United States. The index-numbers for these are obtained by multiplying for each month the United States' index-number of dollar prices for that month by the cost of United States dollars in francs, lire, etc., on the last Thursday in that month, divided by the cost in 1913. The table which I am printing here is obtained by dividing for each month the index-number for external prices calculated in the way described by the index-number for internal prices, and multiplying the quotient by 100. The ratio of internal to external prices in 1913 being thus represented by 100, the figures set out for each month show on the same scale the ratio between external and internal prices in that month. Thus, given that, in 1913, it took m francs to buy in America what one franc would buy in France, in March, 1919, it took $\frac{69}{100}$ of m francs to do this, and in March, 1920, $\frac{139}{100}$ of m francs. The purpose of the following pages is to investigate the meaning of these changes.

Before looking for any "real" explanation of these figures it is well to consider the degree of their reliability. How far do they truly represent what they profess to represent? How far, in short, are they significant? A moment's thought shows that they are subject to two important sources of error. The first of these is that the exchange quotation used in building up the figure for any month is the quotation for one day, namely, the last Thursday in that month. With exchange fluctuating largely

TABLE I.

EXTERNAL PRICES DIVIDED BY INTERNAL PRICES: ON BASIS OF 100 IN 1913.

	France.		Italy.		U.K.		Canada.		Sweden.		Japan.	
January, 1919 ...	61	61	76	75	92	92	—		—		—	
February ...	61		75		92							
March	69		94		98		100		57		81	
April	71	73	88	94	97	97	101	101	63	62	95	90
May	80		100		95		102		66		93	
June	78		89		93		102		67		89	
July	88	89	100	101	100	99	104	104	75	73	88	86
August	101		114		104		105		77		81	
September ...	101		112		100		103		76		84	
October ...	99	102	119	118	98	100	104	104	82	82	90	85
November ...	106		122		102		105		88		81	
December ...	117		133		111		108		94		81	
January, 1920 ...	129	126	147	146	118	115	112	111	106	102	83	82
February ...	131		159		117		112		105		83	
March	139		162		103		107		89		81	
April	153	135	165	154	107	107	110	111	93	92	88	89
May	114		134		111		116		94		97	
June	122		136		110		—		89		—	
July	—		—		114	113	--		88	89	—	
August	—		—		114		—		90		—	

from week to week and even from day to day, it is plain that the accident of the day chosen may sometimes make a large difference to the figure in the table. The prices on which price index-numbers are built up also refer in some countries to single days. This again opens the way for accident. The second source of error is more fundamental. It is that price index-numbers are nowhere built up from all prices, but only from certain sample prices. It follows that the figures in the table, while professing to refer to all internal and external prices, in fact only refer to samples of these prices. Wherever the sample is affected differently from the whole collection of which it is a sample, these figures falsify the facts. That this point is very important can be shown by a simple experiment. In the tables prepared by the Secretariat of the League of Nations the index-number used for America is the Bureau of Labour's index-number, and for the United Kingdom the *Statist's* index-number. But for the United States there is also published "Bradstreet's" index-number, and for the United Kingdom the Board of Trade index-number and the *Economist* index-number. In the table below I have constructed, with 1913 as base period, an index-number of the relative price

movements in "Bureau of Labour" America and "Bradstreet" America, and in *Statist* England and Board of Trade England, on the pattern of the index-numbers of relative price movements in Bureau of Labour America and *Statist* England shown in the table printed on p. 463. It will be seen that the variations from 100 in this second table are sometimes very great. Plainly, however, they cannot be the result of any real cause, for the two Americas are identical, as are also the two Englands. They represent nothing whatever except "errors" of sampling. They are, in short, fictitious. In view of their magnitude, we are bound to recognise that a large part of the divergencies in the main table *may* be fictitious also. This cautious attitude is strengthened by a more direct test. If in calculating the main table the Bradstreet index-number had been used instead of the Labour Bureau's the English figure for May, 1920, would have been lowered from 111 to 86, the French figure from 114 to 89, and the Italian figure from 134 to 104. It is true that the discrepancy between the two American index-numbers has only recently become very marked, but the fact that so startling a divergence between the teaching of one index-number and the teaching of another has been discovered even on a single occasion makes it plain that, for a short period, the divergence of either of the index numbers from the truth may be very wide. It follows that only those figures in the main table that differ widely from 100 can safely be regarded as "significant." We may properly infer from these sample figures that, if the true figures were available, they would, during the six or nine months following the Armistice, be substantially under 100 for France and Sweden; that during the first four or five months of the current year they would be substantially over 100 for France and, still more decidedly, for Italy; and, more generally, that alike in the United Kingdom, France, Italy, and Sweden after the first quarter of 1919, external prices went on rising for the best part of a year relatively to internal prices, and have since somewhat relapsed. A rise in external prices is, of course, the same thing as a fall in external purchasing power. For the broad movement which Table I. indicates it is proposed in the following pages to seek an explanation.

At the outset something should be said generally of the doctrine of purchasing-power parities. The basis of this doctrine is that, in ordinary conditions of trade equilibrium, Englishmen cannot be getting different quantities of sterling per unit for the same commodities as sold in England and as sold, allowance being

TABLE II.

RATIO OF PRICES IN BRADSTREET AMERICA AND BUREAU OF LABOUR AMERICA, AND OF PRICES IN BOARD OF TRADE ENGLAND AND "STATIST" ENGLAND; THE RATIO IN 1913, BEING REPRESENTED BY 100.

	America.	United Kingdom.
December	100	112
January	100	110
February	103	116
March	107	117
April	108	116
May	105	102
June	101	101
July	101	99
August	107	103
September	104	105
October	103	105
November	105	106
December	107	107
January	109	106
February	110	103
March	112	104
April	113	102
May	126	104
June	127	112
July	127	115
August	127	109

made for transport charges and any taxes that may fall for payment, in America. From this it follows that, if there were no transport charges, etc., the external and the internal purchasing power of sterling *in respect of goods entering into international trade* must always, in equilibrium, be equal. It does not follow that external and internal purchasing power, interpreted generally, so as to take account of non-traded goods in the two countries as well as of traded goods, must be equal. Nevertheless, even for purchasing power in this wide sense, a number of important propositions can be laid down. First, given the ratio between the external and the internal purchasing power of sterling in some base period, if charges or taxes are imposed or increased on goods sent from England to America—for simplicity we ignore three-cornered trade—and on goods sent from America to England in equal measure, the ratio between the external and internal purchasing power of sterling will remain unaltered; for, while the external purchasing power in respect of British goods in America is diminished, the internal purchasing power in respect of American goods in England is diminished correspondingly. Secondly, for the same reason, if any cause, such as an alteration in comparative productive efficiency or in comparative demand, alters the relative values of the things England imports and the things she exports, and no other change occurs, *the* external and internal purchasing powers of sterling will remain

unaltered. This would be so under conditions of unimpeded trade, even though the volume of English export goods was reduced to very small dimensions, provided only that the prices of these export goods entered into the index-numbers of both England and America. Thirdly, if a tax is imposed on goods entering America from England, and no corresponding tax is imposed on goods entering England from America, English goods will rise in price in America relatively to England, and no corresponding change will take place in American goods. Consequently, the external purchasing power of sterling will be reduced relatively to the internal purchasing power. The same result evidently follows if a subsidy is accorded to cheapen American goods coming into England. Fourthly, if the imports of a country are of such a sort that transport charges play a large part in their value, while the exports are of such a sort that these charges play only a small part, a general rise in transport charges will lower the external relatively to the internal purchasing power of the country's currency. Thus, in so far as France's exports are chiefly luxuries of high value in small bulk and her imports mass goods, a rise in freight might be expected to lower the external relatively to the internal purchasing power of the franc. Finally, if the sterling prices of non-traded goods in America rise for any reason relatively to the sterling prices of non-traded goods in England, the external purchasing power of sterling will fall relatively to the internal purchasing power, without any lapse of equilibrium—except ultimately under conditions of universal constant returns—being involved. This general analysis affords a key to our present more special problem.[1]

Under the stress of war the Governments of all the European belligerents were forced to help out their finance by creating bank credits, the expenditure of which at once raised prices and made necessary a great expansion of currency to support them. With the export of gold banned, whether by the fear of submarines or by law, and with paper money rendered for practical purposes

[1] The results of the text are stated in a general form that is only exactly valid upon the assumption that the price index numbers employed are constructed in such a way as to give equal weight to import goods and export goods. If the only English exports were coal and this exchanged abroad for a hundred different sorts of imports, all of which were reckoned as of equal weight with coal in both the English and foreign index numbers, a 10 per cent. foreign tax on all imports plus a 10 per cent. English tax on all imports would involve a large rise in the external relatively to the internal purchasing power of sterling as deduced from these index numbers. In like manner, a general rise of freight would not necessarily make the internal purchasing power of sterling fall relatively to the external purchasing power, even though all our imports were luxuries, in the value of which transport charges played a very small part.

inconvertible, the normal automatic checks on this process could not operate. There was nothing, therefore, but the self-restraint of the Governments themselves to prevent an indefinite expansion. In this matter the various Governments went to different lengths. All of them, however, indulged in credit and currency expansion to an extent that caused their domestic price-levels, as against 1913, to rise in a substantially higher proportion than the price-level of the United States. In normal conditions a change of this kind, brought about by credit and currency movements, would immediately be followed by a fall in the rate at which the currency of the high-priced country exchanged for the currency of the low-priced country. Thus, if American prices remained constant and sterling prices doubled, an American giving half as many dollars as before for sterling would still get the same quantity of English goods; while an Englishman, in order to give twice as much sterling as before for dollars, would only have to sacrifice the same quantity of English goods. The fall in exchange would normally be carried just far enough to balance the discrepancy between the price movements in the two countries. It follows that such discrepancy, brought about by credit and currency causes, could not affect the relation between the external and internal purchasing powers of the currency of either country.

The movement of credit and currency in European belligerent countries during the war and the period succeeding it was, however, conducted in peculiar conditions and with an abnormal accompaniment. Down to about March, 1919, the exchanges of the United Kingdom, France and Italy with the United States were "pegged." The Governments of these countries found it quite impossible to meet the obligations arising out of their huge American purchases by buying dollar bills for European export. The supply of these bills was altogether inadequate. Nor could they rely on the export of gold, because, had they attempted to remit the balance in this way, the whole of their store would have been used up and a huge deficit would still have remained. Consequently, they arranged to satisfy their need for American dollars by organising the export of such securities held by their citizens as were saleable in America, and by contracting loans with American firms, and, after the entry of the United States into the war, with the American Government. These arrangements did not, indeed, of themselves involve any absolute pegging of the Exchange. But the British Government adopted, partly on political grounds, the further policy of offering its borrowed

dollars against sterling at the rate of 4·76 dollars to the £. The result was that private persons having claims to dollars could never sell them, whatever the trade and price position, on better terms than this. The British Exchange was thus pegged absolutely by Government action; and a similar, though less completely effective, policy was pursued by the other Allied Governments. Even for the United Kingdom the pegging was not exactly at the point of pre-war parity, but it was only a trifle below this.

Now, had pegging taken the form of a mere Government decree forbidding sterling and dollars to be exchanged at a worse rate than 4·76, it seems plain that no real effect, whether upon the relation between internal and external purchasing power or upon anything else, could have taken place. The decree would very quickly have been masked or evaded. But pegging was something much more than a mere decree. It involved the creation in indefinite quantities of real objects acceptable to America, namely, the promises of European Governments, which could be offered in purchase of American goods. In these circumstances the addition of a policy of pegging to the practice of credit and currency expansion alters the character of the problem and makes further analysis necessary. As before, let us suppose American prices to be unaltered and English price-levels to be doubled. With the New York Exchange pegged at the old parity, Americans sending goods to England could get double as many dollars as they could get by selling them in America; while Englishmen sending goods to America could only get half as much sterling as by selling them in England. There would, therefore, be an enormous stimulus to the export of American goods to England and a corresponding check on the export of English goods to America. Both English and American exportable goods would become short in America and abundant in England. The prices of both would, therefore, rise in America and fall here. This process would continue until the abnormal stimulus to American exportation and the abnormal check on British exportation was eliminated; that is to say, until the dollars obtainable by selling exportable American goods for sterling in England and converting the sterling became again equal to that obtainable by selling them direct for dollars in America; and similarly with the sterling obtainable by selling exportable British goods. This means that, *so far as the exportable goods of the two countries are concerned*, the original relation between external and internal purchasing power alike of American

and of British currency would be restored. It does not, however, follow that the pre-war relation between the external and internal purchasing powers of European currency *in terms of all sorts of goods*, including those which do not enter into international trade, would be restored. No direct influence is called into play to modify the prices of non-traded goods. There is, of course, an indirect influence. The forcing of American effort into export industries involves the withdrawal of resources from other American industries, and so a rise in the dollar prices of the things these industries make. But, in so far as the export industries are conducted under conditions of diminishing returns, there is no tendency, even from the point of view of a long period, for prices to rise as much in the other industries as they rise in these. From the point of view of a short period, the actual transfer of resources from other industries to the export industries will be less than the transfer that ultimately tends to come about, and the rise of dollar prices in these other industries will be affected correspondingly less. It follows that, as a result of credit and currency expansion in Europe, coupled with a policy of pegging, the external purchasing power of European currencies in terms of American non-traded goods will fall less than their internal purchasing power in terms of European non-traded goods. This implies that the external purchasing power of these currencies in terms of goods in general will rise relatively to their internal purchasing power in terms of goods in general. On these lines a part of the change, as from 1913, in the ratio between the external and internal purchasing powers of European currencies that took place during the war and the period immediately following it can be explained in full accordance with the doctrine of purchasing-power parities.

There was, however, also another factor at work. This doctrine, as has been indicated above, is based on the proposition that, in conditions of equilibrium, people will not sell abroad at a different profit from that obtainable by selling the same things at home. When this proposition does not hold, the sterling price even of tradeable goods in America may be below the sterling price of the same goods—allowance being made for cost of carriage, etc.—in Europe. In the war and post-Armistice period the proposition did not hold—at all events it did not hold fully. For the restrictions on importation imposed by European governments in consequence of the shortage of transport rendered it impossible for private traders to take advantage to more than a very small extent of the opportunities for profit open to them

by selling American goods on private account in Europe. France's external prices in francs were abnormally low relatively to her internal prices; but Frenchmen could not in practice buy things at these external prices, and so the influences which ordinarily would have prevented them from remaining abnormally low were unable to operate. This failure of equilibrium made it possible for the rise in external, relatively to internal, purchasing power of European currencies to be carried further than the influences discussed in the preceding paragraphs would of themselves have carried them. In conjunction with these influences it probably explains the main part of the actual fall which our Table I. suggests took place.

When the policy of pegging was abandoned—about March, 1919—the external purchasing power of the principal European currencies fell heavily relatively to their internal purchasing power. A swing-back sufficient to restore the 1913 ratio would have excited no surprise. But the actual swing, if the figures of our table are to be trusted at all, was much larger than this. In Italy and France, and probably in the United Kingdom, the external purchasing power of the currency instead of being substantially higher relatively to the internal purchasing power as compared with the pre-war period, became for many months substantially lower. Why and how did this state of things come about?

In the period that followed unpegging Europe was still buying from America an enormously greater quantity of goods and services than it was selling to her, or could pay for out of interest accruing in America to its citizens. The United Kingdom, indeed, soon attained, on the face of the trade and shipping figures, a fairly strong position, and, had her exports all been used to pay for her imports, she need not perhaps have had great difficulty in finding a sufficiency of dollars. But in point of fact a great deal of her exports appear to have been sold on long credits to the Continent or to have been taken up in providing various sorts of private loans to foreigners, so that they were not available for buying dollars either directly or indirectly. Against France and Italy the balance of trade was much more seriously adverse. There were, of course, still available, to throw into the gap, private holdings of securities which Americans were willing to buy and the sale of which prevented the Exchanges from moving so largely against Europe as they would otherwise have done. British holdings of dollar securities had, indeed, been much depleted during the war, and Italy's holding was never

large. But France seems to have been able to sell a fair amount. In spite, however, of these palliatives, European importers of American goods, no longer able to rely on an indefinite quantity of dollars borrowed for them and placed at their disposal at a fixed rate by European Governments, and still prevented by embargoes from exporting gold, experienced great difficulty in finding enough of these dollars to meet the obligations they were incurring in the course of trade. This cause alone necessarily tended to drive Exchange rates down, and when, as happened from time to time, specially large dollar claims fell due for payment, the tendency gathered strength.

Moreover, the immediate trade position was not the only influence making for a fall in the European Exchanges. Foreign currencies are not purchased only to furnish means of payment for foreign goods. They are also purchased to be held as balances in foreign banks with the object of facilitating trade and, perhaps, of easing interest. If it is thought that European Governments are going to be forced, in order to finance their expenditure, to expand credit and currency more than the American Government is likely to do, America will anticipate, as a consequence of this, a further fall in the European exchanges. Such an anticipation involves the fear that balances held in European currencies will shortly be worth less dollars than they are worth now, and so tends to bring about their withdrawal. The call for dollars to affect the withdrawal forces down the European exchanges. Thus, the expected effect of future currency expansion in Europe is discounted in a present price in dollars in terms of European currencies. There can be little doubt that this class of influence helped substantially to depress the dollar value of lire and francs during the first part of 1920. The comparative importance of the part played by it, as compared with that played by the trade position, cannot, of course, be determined. All we can say is that the two influences combined were responsible for driving down the dollar value of the lira and the franc to an extent that made the external purchasing power of these monetary units substantially lower, as compared with 1913, than their internal purchasing powers.

The situation that existed in the days of pegging was thus reversed. According to the doctrine of purchasing-power parities equilibrating forces must, thereupon, have come into play, pulling back the ratio between the external and internal purchasing powers, *in terms of traded goods*, of the currencies affected towards the pre-war level. But, as before, there would be no tendency

for the prices of non-traded goods to be adjusted quickly, or, indeed, to be fully adjusted even ultimately. Consequently, the depression of the European exchanges since pegging was abandoned is a true cause, even though there were no failure in equilibrium, making for a fall in the ratio of the external to the internal purchasing powers of lire, francs and sterling *in terms of goods in general* below the 1913 level. Again, as before, this true cause was fortified by certain influences which prevented the equilibrating tendencies postulated in the doctrine of purchasing-power parities from working themselves out. Allowance being made for cost of carriage, that doctrine presumes that traded goods will sell at the same price in any currency wherever they are sold. Several European Governments have, however, "controlled" the home prices of their country's produce and have limited exportation in such a way as to cause the external prices of their products to exceed the internal prices more than they normally should do. This type of policy involves a relative rise in the external, as compared with the internal, purchasing power of their currencies. It thus appears that the same general type of analysis that was applied to the problems presented by the pegging period also yields at least a partial solution of those that emerged in the months that followed unpegging.

The preceding discussion suggests that at the present time the external purchasing power of European currencies would be raised relatively to their internal purchasing power by anything that improved the rates of exchange. At first sight it might be thought that we ought not to include in "anything" a policy of reducing credits and currency. For this policy would *primâ facie* improve the exchange and lower internal prices in exactly equal proportions, and, if this happened, the ratio between internal and external purchasing powers would be unchanged. In existing circumstances, however, it is probable that for European countries to adopt a "sound" currency policy would increase foreign confidence in the future of their money, and would, therefore, in fact, improve exchange somewhat more than it lowered internal prices. This would involve a rise in the external relatively to the internal purchasing power of their currencies.

Of greater practical interest are devices for improving the exchange by lowering the demand for dollar bills and increasing the supply of sterling or other European bills. These have assumed two principal forms, according as they aim at cutting down the volume of relatively unnecessary imports or at preventing resources, which might have been sent to pay for imports,

from being turned into foreign capital investments. The methods by which these ends have been sought are various. They are described at length in the volume of the League of Nations papers prepared for the Brussels Financial Conference entitled *Exchange Control*. Sometimes there are direct prohibitions against certain classes of imports and against the export of capital generally. But, as a rule, it is also found necessary to adopt other measures with a view to preventing evasion of these prohibitions. Thus, exporters of goods or securities are compelled to hand over the proceeds of their sales in foreign currency to a central exchange institution, which, in turn, sells exchange to importers of permitted imports. Unless some arrangement of this kind is made, it is impossible to ensure that the proceeds of export or security sales will not, in one way or another, come to be invested abroad. It should be observed that, while a policy of stopping the export of capital must, if successful, improve the current, though not necessarily the ultimate trade balance, a policy of restricting imports *may* in conceivable, though improbable, conditions defeat itself, by causing resources to be withdrawn from the manufacture of export goods, in order to make substitutes for the extruded imports, to such an extent that the export side of the trade balance is lowered more than the import side. This, however, is a secondary point. The essential thing is that, in so far as measures aimed at improving the balance of trade do accomplish that object, they involve an improvement in the dollar exchange with Europe. This improvement is important chiefly because, when brought about in the above way, it carries with it an improvement in *the real ratio of interchange* between European and American goods, or, in other words, a lessening of the real cost to Europe in exports of those essential imports which she must continue to take.[1] Since, however, it also means a fall in the sterling, franc,

[1] If the real ratio of interchange between American export goods and European export goods alters in a given manner, this implies that the ratio between the sterling prices of American export goods and of those European export goods that are wholly made up out of European materials will undergo an exactly corresponding alteration. It does not, however, imply this of those European export goods that are made with the help of imported materials or machines. Thus, if the real ratio of interchange between France and England alters in such a way that two units of pure French produce are required to buy the English stuff that one unit used to buy, then the number of units of French produce, whose value is made up to the extent of one quarter of imported coal, that will be required to buy one unit of English stuff, will be one and three quarter times as much as before. Difficulties arising out of this consideration, as well as other difficulties, would seriously hamper any attempt to determine statistically, by a comparative study of the quantities and values of various classes of imports and exports, how the real ratio of interchange between British and foreign produce has changed since before the war. Nevertheless, an enquiry on these

or lira prices of non-traded American goods relatively to non-traded European goods, it should at the same time raise the ratio of the external to the internal purchasing power of European currencies as defined for the purposes of this article.

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lines would be well worth undertaking. Obviously the real rate of interchange is quite a different thing both from the rate of exchange and from the ratio between the internal and the external purchasing power of a country's currency.

THE SELLING AND FINANCING OF THE AMERICAN COTTON CROP

It may not be out of place by way of preface to make some observations on the world's cotton crop. Probably about 25 million bales of 500 lb. are produced annually, the United States' contribution being between 50 and 60 per cent. normally of this total, India's share being about 20 per cent., China's about 15 per cent., and Egypt's about 5 per cent.

The annual value of the United States' crop, for the last few years, of raw cotton grown in that country is probably somewhere about £350,000,000 to £375,000,000 in gold dollar value (1916, $1,866,240,000; 1919, $1,710,715,068), about half the crop (6,000,000 bales, 1918–19; 6,100,000, 1919–20), being consumed in the United States, Great Britain and the Continent, etc., taking the other half (Great Britain, 1918–19, 2,650,000; 1919–20, 3,000,000; Continent, etc., 1918–19, 2,800,000; 1919–20, 3,400,000).

The last big crop in the United States occurred in 1914–15—about 16½ million bales. Since then the annual yield has been round about 12 million bales, although the final yields are mostly in excess of the estimates. The proverbial optimism of the American appears to evaporate altogether when he makes his annual summer estimates of what the American cotton crop will produce.

Our imports and exports of cotton (from and to all countries) for:—

	1918.	1919.	1920.
Value of Imports . .	£150 millions	£190 millions	£250 millions
,, Exports . .	£180 ,,	£251 ,,	£430 ,,
Excess value of Exports .	£30 ,,	£61 ,,	£180 ,,

(Note.—The figures for 1920 are estimated.)

Our imports of cotton were:—

From U.S.

1918.	1919.	1920.*
£95 millions	£125 millions	£128 millions

From British Sources.

1918.	1919.	1920.*
£50 millions	£57 millions	£58 millions

Foreign Sources other than U.S.

1918.	1919.	1920.*
£5 millions	£8 millions	£14 millions

* Eight months only.

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It will be seen that two-thirds of the total cost of our raw cotton imports goes to the United States; it is also estimated that about 75 per cent. of the output of cotton mills in Great Britain is exported, leaving the balance for domestic consumption. More than 600,000 people are actually engaged in this country in the spinning and weaving of cloth, the number of our population dependent on the cotton trade being believed to be over three millions. This year about one-third in money value of our total exports will come from the cotton industry.

Our manufactured and partly manufactured exports in 1920 for eight months, compared with 1919 for a similar period, have about doubled in money value—£740 millions *versus* £385 millions —and it may be fairly assumed that as we pay more promptly for our imports than we obtain payment for our exports, the effect of this on credit expansion must be very considerable, and to some degree explains the restrictions that the banks are now compelled to impose on further demands for fresh credit facilities from their customers.

Sir Charles Macara, in a letter on August 24th to the *British Empire Review*, in emphasising the bearing on production of the cotton operatives' shorter hours and the large amount of cotton machinery that is idle in the world from various causes, stated that raw cotton material takes six, nine, twelve months, and even longer, to pass through the numerous processes before the current stock of manufactured goods is increased. In 1919 the production of cotton cloth was only 3½ million yards as against over 7 million yards in 1913, whereas the actual money value of the cloth manufactured in 1919 was approximately double that of 1913. Slow production and high prices tie up banking credits, and if, added to these factors, manufactured goods themselves do not go into quick consumption, the burden on banking credits is obvious and may become unbearable sooner or later.

Russia is probably the only important cotton-growing area (1,300,000 bales in 1914-15) which is not growing this crop now to the same extent as in pre-war times, but that fact will only increase her present domestic misery, as she was formerly a large importer also. With a carry-over in America this season of about 7 million (6,800,000) bales old crop, and with the largest new American crop in sight (13 million bales or more) since 1914, and no evidence of short cotton crops in other countries, it is hard to believe that there is not enough of raw cotton in existence to more than satisfy the world's present demands.

Financing and Selling in the United States.

It may not be inappropriate before sketching out how cotton is financed and sold in the United States to quote here what occurred in September last when a deputation from the American Cotton Association met the Governor of the Federal Reserve Board to secure a definite understanding as to the Board's attitude in regard to the financing of the cotton crop—a request being also made for credit assistance from the Board for $500,000,000 against five million bales at 20 cents a pound, in order to provide for the orderly marketing of the cotton crop during the coming winter. The Governor replied: "I don't think you will work out the situation by demanding any more extension of loans than is now going on. I think the thing you gentlemen should do is to go back home, tell your people to quit talking calamity, and make the best of a bad situation. You want $500,000,000 more on cotton loans; if the Board would undertake to find credits for all agricultural products, it would take about three thousand million dollars additional in loans. We have shown our good faith in taking money from the East and putting it in the South, but the time has got to come when they will want their money back. You have got a problem here in your low-grade cotton" (he was apparently referring to the carry-over of 6,800,000 bales)—"I think that is your main problem. Looking at the thing broadly, it seems to me that you should get it into your heads that it is not the Board's business to deal in prices. If we made the loans you ask for, besides being a serious drain upon the Federal system, it would have an effect on wages."

American middling cotton on July 31st last was 43.75 cents, on September 10th it was 32.25 cents per lb., by October 11th the quotation had fallen to 23 cents, so it is obvious that the Governor's advice had some material effect on the price of raw cotton.

In August a Convention of the American Cotton Association at Montgomery (Ala.) approved a recommendation that the minimum price for cotton up to November 1st should be 40 cents per lb., increasing 1 cent monthly thereafter till the entire crop had been marketed. Reports are appearing in the Press from time to time that the cost of cotton production is between 35 and 43 cents per lb. This is surely propaganda. Recently an American international banker—from New Orleans, whose banking career had been largely spent in that cotton centre—gave it as his opinion that, after making full allowance for the high

cost of labour in the South to-day, and for everything else, the actual cost of production might truly be described as around 20 cents, or about half the amount claimed.

The cotton surplus already mentioned as carried over from last season, *plus* thirteen million bales of new crop, with a poor demand for the raw material, either in the United States or elsewhere, makes a holding up campaign beyond the power of even big America.

One can form some idea from these comments of the magnitude of the banking credit necessary to finance the raw material where it is grown, and the further immense credits that have to be found in America and abroad during the period covering its manufacture into cloth.

Credit is utilised from the time the seed is planted. The American cotton farmer generally makes a good living nowadays —but not much more—from his occupation. A fair proportion own their farms, the majority probably rent them from the great plantation owners and syndicates. Only a small number can carry through on their own resources from seed-time till the crop is picked. The country storekeeper, in return for a lien on the crop, allows the farmer credit at his store, and this is redeemed when the cotton is taken over by the storekeeper at harvest-time. If there is a surplus to the farmer's credit, after interest, etc., is allowed for—on the accommodation given—he then gets it. The country storekeeper is usually in the employment of a local cotton factor, or he may be the local agent of the proprietors of the larger plantations who rent these out in small sections. The proprietors of the large plantations are mostly substantial men with means, whose credit is good, and any further financial assistance needed during the growing season they can ordinarily obtain by borrowing on their promissory notes from bill brokers or bankers.

The cotton factors are really the commercial bankers of the industry, and they are usually affiliated with some large bank, on whom they can rely for additional credits during the heavy seasonal pressure.

When the cotton reaches the gin or compress, gin receipts or compress receipts come into existence, and these are used as collateral by the buyers, who borrow from the local banks in order to pay cash to the growers. The loans made by local banks are repaid when the exchange of these receipts into inland bills of lading is effected. The ladings are then attached to drafts drawn on the buyers' agent or the buyers' head office in America.

If the cotton is sold abroad, the local banker exchanges the gin or compress receipts for through or port bills of lading, and attaches these to a foreign bill of exchange, which, if he deals in foreign exchanges, he may buy himself and transmit to Europe, or send the exchange to New York, or other American city with a foreign exchange market, for sale and credit at current rates.

Usually these Southern banks are large borrowers from the New York banks during the cotton season, and the New York banks transacting foreign exchange business are naturally anxious to make such loans to the Southern banks, since for these they obtain good interest rates, and, in addition, from the same borrowers, large supplies of foreign exchanges, the proceeds of which are often used to repay these loans. This may be described as intensive banking for the lenders, who secure two profits where only one is ordinarily obtainable.

The concentration of sterling cotton bills through one or two American banks in London during the last ten or fifteen years has been largely built up by the intimate associations that now exist between the big New York deposit banking institutions possessing foreign offices and the Southern banks.

The financing of cotton in America—and perhaps in the future in Europe as well of the exported cotton—lies in the hands of these powerful American banks, should America be able to provide a cheaper supply of credit for financing these cotton exports in the importing countries than these countries can themselves.

It was on the free conversion of credits into gold and low and stable discount rates that we built up the London acceptance business—without either, can we confidently expect to retain the financing here of our imports of American cotton, which financing naturally lies within America's grasp if her domestic money conditions are sufficiently favourable? America's financing of our cotton imports under these conditions would be profitable to Lancashire, although depriving Lombard Street of a large part of its supply of the finest bank paper and the clearing banks of their relative acceptance commissions.

Exchange.

Liverpool buys cotton in sterling at so much pence per lb. c.i.f. This means that the dollar exchange value of the pound sterling is also included in the "all-in" sterling price asked for the cotton by the American seller. In other words, the American seller takes the risk of getting his anticipated dollar price for the cotton sterling price he makes, and with this aspect of his sale

the Liverpool buyer has no direct concern. When a Liverpool buyer buys either for spot or future delivery he immediately cables his American seller how the reimbursement is to be effected. This reimbursement is almost always done by sixty days' sight drafts—occasionally ninety days—on the best English banks, accompanied by bills of lading and certificates of insurance for the cotton, which sterling exchange the American seller promptly places with an American exchange bank for spot or forward delivery, thus eliminating, so far as the seller is concerned, the factor of exchange risk. In computing the price of the cotton offered abroad in a foreign currency, the American seller has, of course, to make sure that he has an American exchange bank ready to pay to him the dollar price he expects for his exchange, if his prospective foreign buyer of the cotton accepts, otherwise the transaction might result in a loss through depreciation meantime of the foreign currency in which he offered to sell.

The New York exchange market is very highly organised and efficient nowadays, and generally close prices are given to real traders for spot and future deliveries of sterling exchange, which enable these exporters to consummate their international sales on keen terms with little risk to them of exchange loss.

This is particularly true as regards the cotton trade, for as these sterling exports from America are financed by clearing bank drafts, the relative credit risk to the American exchange banks on such prime acceptors is practically a negligible one. The actual risk the American exchange banks really run, until acceptance is secured, is a short and moral one on the American cotton drawers, the drafts being accompanied until accepted by the drawee banks by shipping documents for the cotton drawn against.

Generally, the big American exchange banks keep a square book on future deliveries, and the remuneration they require for such high-class business is a trifling premium relative to the small risk involved.

Were the American cotton sellers unwilling to sell in sterling —for since the war they have refused to sell in French and Belgian francs and in other European currencies, more uncertain and more depreciated than sterling—and exacted payment in dollars, it would then devolve upon Liverpool importers to furnish dollar payments to meet their purchases.

The Liverpool cotton people have so long been accustomed to buy in sterling that they do not seem anxious at present to

consider any change, and so far the American cotton exporters have not asked for a dollar price in place of a sterling one.

But if it should happen that the New York money market became so much cheaper than ours for financing American cotton imported here, then dollar credits would become more attractive to Liverpool than sterling credits, and eventually lead to the purchase of cotton in dollars by Liverpool, thus throwing the exchange covering of these purchases and of any dollar credits granted upon this side of the Atlantic.

FUTURES.

On the subject of futures the following questions have been asked :—

(1) Does the grower of cotton ordinarily cover himself by a sale of futures?

(2) Does the American factor or merchant do so?

(3) Does the ultimate cotton goods' buying merchant at home or abroad who buys such goods for delivery months after his ordering them cover himself by selling futures of raw cotton?

The broad answers to questions Nos. (1) and (3) are in the negative, to No. (2) in the affirmative. Ordinary cotton farmers are like other farmers, generally men with little or no capital, and who therefore are not in a position to find any additional money to pay differences that might be called for on sales of futures, even though such differences were represented by the increased value of their actual crop.

Supposing they had the means or the credit to enable them to operate in futures, they probably have not the skill and knowledge to protect themselves through this channel.

Besides, cotton farmers are nearly always bullish, and unlikely to sell forward at a discount on spot quotations—and especially before they know what their crops are actually going to be. Slumps in price usually take place when the size of the crop has become common knowledge: then the tendency of the producer when the crop is large is to expect better prices by holding off selling, unless there is someone in a position to sell him out, which probably is what most often happens.

The ultimate buying merchant of cotton piece goods relies mainly on his local market to pay him the price at which he bought the goods forward. He would, in most cases, be disinclined to hedge on raw cotton as this might entail his finding fresh capital to finance his purchased goods before these were under his control and could be used as collateral for borrowing

the additional money required. If the ultimate buying merchant were in a silver-using country, he might use the silver futures market for hedging his purchases, but the same possibility of having to provide further money to keep the protection in force on the basic goods would perhaps make for second thoughts and inaction.

Of course, if one could be certain that prices were going down, a hedging sale would be simplicity itself.

The cotton futures market is designed primarily for those engaged in the cotton industry—the American factors and British and American cotton merchants and manufacturers. This class of trading serves to stabilise the whole industry and limits speculation by the trade itself.

The annual American crop is probably sold from twenty to forty times over on the cotton exchanges. New York cotton exchange has traded in one million bales in one day, and half that figure is not abnormal. The outside public, more especially in the United States, at times undoubtedly speculates heavily in cotton and accentuates the violence of the price movements.

The Liverpool cotton merchants do not to any material extent take up uncovered positions. Their bankers always presume that if their cotton clients buy or sell cotton, they invariably hedge themselves. If it were known they were speculating, their credit facilities at the banks would be curtailed, if not withdrawn altogether.

There is a prevalent idea that futures afford a more complete protection than they actually do. For example, it is believed by those outside the trade that when Manchester buys cotton from Liverpool and the Liverpool seller puts out a future pending his purchase in America of the precise grade of cotton sold that all is well and no danger of loss exists for the seller in the meantime. That, however, is not so. If the Manchester buyer has bought a grade of cotton, as usually happens, so many "points on" the future basis, these "points on" are not covered at all by the futures put out. To that extent the risk taken by the seller is his own till the actual cotton is bought as cover and the future is closed out. These "points on" are relatively high nowadays and may be 30 per cent. or more of the value of the cotton sold.

The future contract itself is a wide one, in the grades of cotton that are tenderable under it. No buyer on the cotton market, a spinner particularly, would care to buy actual cotton by futures, as he would seldom or never get the right sorts or

adequate quantities of the sort he wanted under such a contract. Futures, therefore, only afford some basic protection against loss.

Here is a description of the process of hedging by a former President of the New York Cotton Exchange: "A hedge or future is the purchase or sale of contracts for 100 or more bales of cotton for future delivery made not for the purpose of receiving or delivering actual cotton, but as an insurance against fluctuations in the market that might unfavourably affect other ventures in which the buyer or seller is actually engaged."

The Financing and Selling in England.

Reverting to the account given above of the financing of raw cotton on the other side, the reader will remember that where the cotton is sold abroad it is represented by shipping documents attached to, say, a 60-days' or 90-days' sterling bill of exchange, drawn on an English bank, which the American cotton exporter had sold to an American exchange bank. This bank would get its money back by selling an equivalent amount of sterling to a buyer who required remittances of such a kind, and any surplus that arose over the purchase and sale after all expenses had been met would be the American exchange bank's profit.

The American exchange bank would, of course, transmit the cotton bill to its London correspondent or London office for acceptance by the drawee, and for discount when required. Sixty or ninety days after acceptance the bill would be paid by the acceptor—the English bank. Meantime the bank would retain the documents attached to the bill when presented for acceptance. The bank has, therefore, security for its acceptance, and if the cotton arrived before the acceptance is due, the cotton can be passed on to the next buyer and fresh security or cash be deposited with the bank, so that it remains secured against its outstanding unmatured acceptance.

If the cotton is not sold when the acceptance is paid, the bank may probably continue the amount paid as a cash advance against the deposited cotton. Or the bank's client may arrange for a London merchant banker to give him a credit on the same cotton for a further period or periods, depositing with this new acceptor the warehouse receipts for the cotton as security.

If the cotton has been sold to a spinner by the Liverpool merchant, he may draw long bills on the spinner, and hand these to the accepting Bank or, by arrangement with that bank, to a discount house for discount, and with the proceeds the bank's acceptance at maturity will be paid.

When the spinner sells to the manufacturer, the latter often pays the spinner out of loans or bank overdrafts, which are liquidated when the Manchester merchant pays for the piece goods he has bought. To obtain these funds, the merchant either draws bills under credits opened for him by merchant bankers in London, or under credits placed at his disposal by his foreign buyers. Or, again, he may get advances from the Eastern, South American, or other Overseas banks against the deposit of his documentary drafts drawn on his foreign buyers. It is, of course, the affair of these foreign buyers to protect their purchases against fluctuations of exchange, as dealings are always in sterling. Doubtless the largest oversea firms do what is prudent in this connection, but there are some who, through ignorance or speculative tendency, take risks that frequently bring trouble to themselves and to others eventually.

The fall that has occurred in the silver exchanges during this year is a case in point, causing anxiety, if not definite loss, in various quarters. Cancellation of orders, about which so much has been heard during the last six months, indicates that all the buying orders given from abroad were not based on sound business principles. Abnormally active trade in any market brings in a fresh class of trader of an abnormal brand, and the reactions that invariably develop are largely due to the manner in which this class of trader operates.

A certain literary man once remarked that "nothing succeeds like excess." Were he alive now he might have been tempted to add, as an exception to this rule, the E.P.D. The trouble about all excesses is that they have limits beyond which something very unpleasant happens. The world has had, and is still having, an excess of wars, high prices, currencies, banking credits, and also of advice from politicians. Since they handed out their Peace Treaty we have almost daily been told to "produce," "produce" and all would be well. Production is only useful if the corresponding consumption is at hand.

The pre-war nations had a working sort of relationship with each other in agriculture, in industry, and in commerce, and the prices of most things had a relative basis. Millions of people are now outside the effective world market. Those now inside that market are producing many things in excess of their internal needs. Textiles, tea, rubber, hides, and ships, for example, might be mentioned, and, as a consequence, the insiders are short of many things which those outside formerly produced for them and exchanged for the surpluses now appearing.

What is the use of telling Lancashire, with its short time, and its yardage output only half of 1913, to increase production when buyers are insufficient? You cannot now have millions of people outside the world market without disastrous results to everyone —in a world that was organised before the war on the basis of the inclusion of all producers and consumers. The peoples of Central and South-Eastern Europe and of the old Russia must be promptly got into the world's market again, otherwise the economic and political condition of those now inside the effective market may soon become not unlike the condition of those outside.

That is a vital problem which the Allies and America ought to have dealt with in Paris in 1919.

R. C. WYSE

CURRENCY INFLATION AND PRICE MOVEMENTS IN AUSTRALIA [1]

1. Introduction.

The controversies and discussions which war-time finance has given rise to in England and other countries have little or no counterpart in Australia. For, though prices have steadily risen and the cost of living has become a serious menace to the standard of life, there is but little attempt to investigate adequately the economic causes of these problems. Commissions and price-fixing tribunals have been appointed by both State and Federal authority to consider the general causes and effects of rising prices. These have been content to consider the cost of production of particular commodities and to measure the increased cost due to increased prices of raw materials, higher wages, or rising interest rates. Thus the Interstate Commission has been engaged for several months investigating the prices of commodities, and has issued eleven reports. The Commission found that raw materials had increased in price, wages were rising, the exportation of some commodities had affected their prices, monopolies were present in some cases, and large profits had also been made.[2] Though in the Report on Groceries the large Government expenditure and the note issue are referred to as producing "a volume and velocity of circulation unprecedented in our history,"[3] the currency factor is not generally considered as an important cause of rising prices. But the considered experience of other countries—*e.g.* England[4] and America[5]—during the war has given prominence to general currency inflation as the main cause of rising prices. This factor, however, cannot be applied to Australian conditions without

[1] The writer wishes to acknowledge his great indebtedness to Mr. L. F. Giblin, Government Statistician of Tasmania, for many valuable suggestions.

[2] Prices Investigation: Reports by the Interstate Commission of Australia.

[3] *Report* No. 6, p. 56.

[4] Professor J. S. Nicholson: Statistical Aspects of Inflation; the *Journal of the Royal Statistical Society*, July, 1917, Vol. LXXX, Part IV, p. 487.

[5] Professor E. W. Kemmerer: *Inflation*; *The American Economic Review*, June, 1918, Vol. VII, No. 2, p. 247. According to an official paper of the British Government (Cd. 434) there is a close connection between the growth of currency during the war and the rise in wholesale and retail prices both in belligerent and neutral countries.

careful consideration of local circumstances; for in Australia the export and import trade is so important as to affect the general price level considerably, apart from the operation of purely local factors. Thus, while the value of production in 1917 was estimated at £283,000,000,[6] the total foreign trade (imports plus exports) for the year 1916–17 was actually £174,000,000. Thus we draw so extensively upon other countries for many commodities, while at the same time the prices of our great staple products are so greatly affected by the foreign demand for them as to render the Australian price level more a product of two sets of factors, domestic and foreign, than is the case in most other countries. It is thus necessary to consider the whole problem relative to Australian conditions before any general conclusion may be stated concerning the relation of currency and prices. It was with this object in view that an investigation into Australian currency and price problems was undertaken by the writer. The results of this investigation are embodied in this article, and it is believed that they will be of interest, not only because of the local conditions described, but also because of the confirmation of monetary theory afforded by Australian experience.

II. DESCRIPTION OF DATA.

The data drawn upon for the investigation were taken mainly from the Reports of the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics, the Commonwealth Year Books, and the Quarterly Abstract of Statistics, all published by the Bureau of Census and Statistics. The Parliamentary Debates also provided much general information, while the Annual Statements prepared by the Federal Treasurer (Parliamentary Papers) were also useful. These publications contain information upon the note issue, banking and credit, production and trade conditions, shipping and commerce. Though inadequate in some minor details, this information is sufficiently complete to measure accurately changes in these factors over a period of years.

There are three official price index-numbers for Australia—Wholesale, Cost of Living, and Import and Export. The whole-

[6] *Commonwealth Year Book*, No. 12, p. 1192. It may be noted that this estimate of production is incomplete inasmuch as workshops in which no power is used and less than four hands are employed are excluded from manufacturing industries, while no doubt some minor rural activities also escape notice.

sale price index-number is based upon the Melbourne wholesale prices of ninety-two commodities divided into eight main groups. The cost of living index-number is based upon the retail prices of forty-six commodities and house rent in 150 towns in the Commonwealth, and separate index-numbers are computed for the six capital towns and for thirty towns, five in each State. The commodities are divided into four groups, as follows: (*a*) Groceries, 18; (*b*) dairy produce, 7; (*c*) meat, 21; (*d*) house rent. If house rent be omitted, the index-number may be used as a measure of retail prices, though deficient, as are most retail price index-numbers, in that they exclude clothing, footwear, and other commodities for which standard grades and qualities are difficult to define. It is with this proviso that the retail index-number is used in this article. The import and export index-number is based upon forty-four commodities, divided into six main groups, the prices used being obtained by dividing the total value of each commodity by the quantity imported or exported in the same year. In all three index-numbers the base year is 1911, and for the purpose of weighting the method of "aggregate expenditure" is used. Further facts relating to these index-numbers will be given in the text where relevant.[7]

Of the other factors coming within the scope of the investigation little need be said. It is not possible to obtain complete statistics of the gold circulation before the war, but the Treasury now publishes weekly statements of the total issues of Australian notes and the amounts held by the public and the banks respectively. The amount of money in circulation during the war can therefore be given. For banking, complete statistics of reserves and deposits are given in the Commonwealth statistics, and the clearing-house figures for the five mainland capitals are procurable. Estimates of total production are made by the Commonwealth statistician, and information upon trade and commerce is also to be found in the Commonwealth statistical publications. Thus, in general, data are available sufficient for testing the equation of exchange in Australia, though not with the same accuracy as has been done for the United States from 1896 by Professor Irving Fisher.

[7] No attempt is made here to describe fully the method and scope of price measurement in Australia. Such a description will be found in the Labour and Industrial Reports, Nos. 1–9 (Commonwealth Bureau of Census and Statistics, Melbourne).

III. Fluctuations in Prices.

(a) *Pre-War.*

Before the war the price level in Australia was gradually rising, as the following tables show :—

Table I.

Melbourne Wholesale Prices, Index Numbers, 1901–13.

Year.	I. Metals and Coal.	II. Wool, Cotton, Jute, Leather, etc.	III. Agricultural Produce.	IV. Dairy Produce.	V. Groceries.	VI. Meat.	VII. Building Materials.	VIII. Chemicals.	IX. All Commodities Together.
1901–5	917	820	995	1,032	957	1,174	840	891	97[illegible]
1901	1,061	774	928	1,029	1,048	1,345	841	917	974
1906	882	978	916	972	923	1,110	896	864	948
1911	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1912	1,021	991	1,370	1,206	1,052	1,357	1,057	978	1,170
1913	1,046	1,070	1,097	1,054	1,024	1,252	1,128	995	1,088
Percentage Increase 1901–5 to 1913	14·1	30·5	10·3	2·3	7	6·8	34·3	11·7	11·8

Table II.

Cost of Living, Index Numbers, Capital Towns, 1901–13.

Year.	I. Groceries.	II. Dairy Produce.	III. Meat.	IV. Groceries and Food. I., II. and III.	V. House Rent.	VI. Cost of Living, All Groups.
1901–5	932	963	1,129	991	766	896
1901	916	945	1,101	972	751	880
1906 . ..	966	934	1,053	980	794	902
1911	1,000	1,000	1,000	1,000	1,000	1,000
1912	1,124	1,115	1,144	1,129	1,063	1,101
1913	1,043	1,080	1,198	1,095	1,118	1,104
Percentage Increase 1901–5 to 1913	11·9	12·1	6·1	10·5	46	23·2

It will now be seen that the cost of living index-number in the period 1901–5 to 1913 rose by more than 23 per cent., while

the wholesale index-number rose by less than 12 per cent. But the great rise of 46 per cent. in house rent in this period was the main cause of this disparity, and if this item be excluded and the retail price index-number as given in Column IV. of Table II. considered, the rise in retail prices is 10·5 per cent. compared with a rise of 11·8 per cent. in wholesale prices. Thus in either wholesale or retail the average annual increase was very slight in the last pre-war decade.

(b) *Prices During the War.*

But these steady increases in prices had made the cost of living a problem already before the war, and Labour Governments turned anxiously to price fixation as a means of coping with the evil. From the fixation of wages by Arbitration Courts or Wages Boards it was but an easy step to the fixation of prices.[8] This was attempted at first by State Governments, but in 1916 the Federal Government, acting under the authority of the War Precautions Act, commenced price-fixing operations. In spite of all this, prices continued to rise, as the following tables show :—

TABLE III.

Melbourne Wholesale Prices, Index Numbers, July, 1914,[9] to March, 1919.

	1	2	3	4	5	6	7	8	9
Year.	Metals and Coal.	Textiles, Leather, etc.	Agricultural Produce.	Dairy Produce.	Groceries.	Meat.	Building Materials.	Chemicals.	All Groups.
July, 1914 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Year 1915 ..	1,166	934	2,024	1,272	1,018	1,502	1,164	1,490	1,406
Year 1916 ..	1,539	1,307	1,130	1,235	1,266	1,551	1,361	1,716	1,318
Year 1917 ..	1,919	1,841	1,084	1,181	1,302	1,480	1,722	2,141	1,456
Year 1918 ..	2,197	2,314	1,351	1,210	1,378	1,469	2,448	3,085	1,695
March, 1919 ..	2,000	1,850	1,611	1,355	1,381	1,465	2,606	3,089	1,685
Percentage increase July, 1914, to March, 1919	100	85	61	35	38	46	160	208	68

[8] Jethro Brown: *Prevention and Control of Monopolies*, p. 126. "The public control of prices involves no more than an extension of the principles which underlie existing legislation for the protection of the wage-earner."

[9] Labour and Industrial Branch Report, No. 9.

TABLE IV.

Cost of Living, Index Numbers, Capital Towns, 2nd Quarter, 1914, *to 3rd Quarter,* 1919.

Date.	I. Groceries.	II. Dairy Produce.	III. Meat.	IV. Groceries and Food, I., II. and III.	V. House Rent.	VI. Cost of Living. All Groups.
2nd Quarter 1914 ..	*	*	*	1,158	1,150	1,152
1914 ..	1,062	1,108	1,323	1,144	1,135	1,140
1915 ..	1,272	1,307	1,781	1,416	1,081	1,278
1916 ..	1,279	1,316	2,056	1,495	1,081	1,324
1917 ..	1,261	1,295	2,022	1,472	1,098	1,318
1918 ..	1,342	1,345	1,992	1,514	1,143	1,362
3rd Quarter 1919 ..	*	*	*	1,708	1,217	1,506
Percentage increase 2nd Quart. 1914, to 3rd Quart. 1919	—	—	—	47·5	5·8	30·1

* Figures not available from statistical publications.

Tables III. and IV. portray the effects of the extraordinary conditions brought about by the war, wholesale prices rising to September, 1919, by 68 per cent. and retail by 47·5 per cent., while the cost of living rose 30·1 per cent. The increase during war time may best be observed from the comparison afforded by Table V. :—

TABLE V.

Price Increases Before and During the War.

	Wholesale Prices.	Retail Prices.	Cost of Living.
Percentage increase in—			
(*a*) Last pre-war decade	11·8	10·5	23·2
(*b*) Five years of war	68	47·5	30·1

The war-time increases shown in this table, though small compared with similar movements in most countries, must be considered as quite abnormal in a country like Australia with abundant supplies of the necessaries of life. But, whether these movements were due to influences operating within the Commonwealth or to influences over which Australia had no control, is a question which requires careful consideration. In order to estimate the importance of local factors, an attempt must be made

to measure the respective influences of each on the price level. For this purpose it is necessary to describe the chief features of banking and currency in Australia at the outbreak of war and the subsequent financial measures adopted by the Government.

IV. Banking and Currency in Australia.

According to Section 51 of the Commonwealth Constitution Act, the Commonwealth Parliament has power to legislate with respect to banking. On the basis of this power two important Acts were passed in 1910—the Australian Notes Act and the Bank Notes Tax Act. According to the former, the Commonwealth Treasurer was authorised to issue notes which would be legal tender throughout the Commonwealth and redeemable at the seat of Federal Government.[10] The notes were to be issued on the partial deposit system adopted by the Bank Charter Act of 1844 in England. For amounts of notes issued less than £7,000,000 a 25 per cent. reserve of gold was to be held, but for all issues above £7,000,000 a reserve in gold equivalent to the face value of such issue was required. Under these circumstances there was little danger of an over-issue, but in 1911 the Act was amended so that the Treasurer was required to hold "in gold coin a reserve of not less than one-fourth of the amount of Australian notes issued." This amendment, strongly resisted by bankers and others,[11] was not acted upon until September, 1914, but subsequent to this date the Government used it freely, with what results will be seen later. The other Act referred to above—the Bank Notes Tax Act—imposed a tax of 10 per cent. per annum on all bank notes issued by any bank in the Commonwealth after the commencement of the Act. The effect of these two Acts was to concentrate practically the whole issue of notes in Australia in the hands of the Federal Government, so that on June 30th 1914, the note circulation of the private banks had fallen from £3,748,482 in 1910 to £306,809. On the same date the issue of Australian notes stood at £9,573,738.[11a]

[10] "It provides for an Australian paper currency of legal tender, payable in gold at the Treasury of the Commonwealth and there alone." The Prime Minister (Mr. Andrew Fisher), 9th August, 1910, *Parliamentary Debates* Vol. LV., p. 1242.

[11] Thus the manager of the Bank of New South Wales, in a communicaton to the Prime Minister, strongly deprecated any alteration in the gold reserve, and reminded him that a very large proportion of the notes outstanding is held by the bankers as part of their cash reserves. Speech by Mr. Alfred Deakin, 19th December, 1911, *Parliamentary Debates*, Vol. LVIII., p. 4841.

[11a] The Commonwealth Government is now proposing to place the issue of notes under the Commonwealth Bank, but legislation to this end has not yet been introduced by the Government.

Meanwhile, in 1911, the Commonwealth Government had established the Commonwealth Bank, which has no right of note issue, but otherwise performs all the functions of a bank of issue. The Bank commenced operations in 1912, and was well established when the war commenced. It has greatly assisted the Government in financing the war, and was especially helpful in floating war loans and in establishing the enormous issue of Australian notes which the financial policy of the Government necessitated. With a State monopoly of the note issue and a State Bank, Australia was in rather a unique position for financing a war. How the situation developed under these influences may now be shown.

V. War-time Financial Measures.

Though the outbreak of war did not precipitate a crisis in Australia, the Government was forced to devise financial expedients to meet the new situation. One of the first steps taken was to increase the note issue, and for this purpose the Government took advantage of the Act of 1911 amending the Australian Notes Act referred to above. As a result the note issue rose from £9,573,738 in June, 1911, to £32,128,302 in June, 1915, while the percentages of reserve at the respective dates were 12·9 per cent. and 34·34 per cent.[12] An embargo was placed on the export of gold from Australia, and when the Associated Banks of Victoria agreed to settle their daily differences through a reserve of notes[13] where before gold was required,[14] it was a comparatively easy matter for the Commonwealth Government to increase the note issue very rapidly. For the Banks now accepted the notes as full legal tender for the settlement of debts among themselves, and the Commonwealth Bank, however deeply indebted to other banks, could always find a ready means of relief in the Australian notes through which it enjoyed an unlimited clearing reserve. Since gold could no longer be exported, and as the banks were freed from the necessity of maintaining large gold reserves for clearings, the reserve of gold at the Treasury rapidly expanded, being £1,107,000 in June, 1914; £11,035,000 in June, 1915; and £16,113,000 in June, 1916. Now before the war the gold standard has been safeguarded by (i) the

[12] See Table VI., p. 494.

[13] "But in September, 1914, the principle of settling exchanges between banks in gold was abandoned for settlement in Australian notes." Butchart: *Money and its Purchasing Power*, p. 28.

[14] Similar arrangements for effecting clearings exist in Sydney, Brisbane, Adelaide and Perth, and the amount of clearings is published from week to week.

maintenance of the original restrictions on the note issue as defined in the Australian Notes Act of 1910, (ii) the use of gold as a reserve for bank clearings, and (iii) the free export of gold. Within three months from the declarations of war these safeguards had all been surrendered. The note issue was restricted by a 25 per cent. reserve only in a country where new gold supplies were forthcoming yearly,[15] the export of gold was prohibited, and the banks had adopted Australian notes as a basis for clearings. The gold standard was thus in practice abandoned, and Australia had a note issue which was virtually inconvertible inasmuch as the banks had adopted the notes for clearing purposes and would not press the Treasury for gold, where alone the notes were legally convertible. It may be noted, however, that the opportunity thus allowed for increasing the note issue enabled the Government to lend some £19,000,000 to the States from the notes fund, upon which interest was earned, while at the same time £7,475,000 was used by the Commonwealth for purposes of public works and redemption of loans. But this is a doubtful gain inasmuch as many public works undertaken with this money available might otherwise have been suspended during the war, and, in so far as they were not necessary immediately, a much required economy would have been achieved.

But the embargo on the export of gold was the really vital factor in the situation. Full play was given to local influences, and, while all factors tended to promote an increase in the note issue and, as will be seen later, an increase in bank deposits also, the normal corrective operating through the foreign exchanges was absent. Hence the conditions were such as to favour the inconvertibility in practice of the note issue and to promote inflation.

But the financial measures thus outlined were necessary to the Government for its method of financing the war. Up to June 30th, 1919, out of a total war expenditure of £311,452,248, only £45,958,584 was paid out of revenue,[16] and of this almost the whole amount was expenditure incurred in debt charges, sinking fund and interest, war pensions, and repatriation. Towards this total loan expenditure of £265,493,664 war loans to the amount of £191,086,462 were raised in the Commonwealth. Now the methods adopted in raising these loans is of great importance. Seven war loans and a "peace" loan have been

[15] From 1914 to 1918, inclusive, the production of gold in Australia amounted to over £35,000,000.

[16] Federal Treasurer: Budget Statement, October 8th, 1919, *Parliamentary Debates*, No. 95, p. 13063.

raised, and as the financial pressure became more severe the Government saw the necessity of inducing everyone to become a war-loan investor. Thus the number of applications increased from 18,748 in the first loan to 243,194 for the seventh. Arrangements were made with banks and savings banks whereby investors might be required to deposit only 10 per cent. of their total intended purchase, paying the remainder in instalments over a period of six months.[17] In this way banks gave advances to investors, thus promoting an expansion of bank deposits, and in cases where customers failed to pay their instalments the bankers doubtless assisted them further.[18] The expansion of credit caused through this and other factors to be noted later was greatly facilitated by the increasing issues of Australian notes which formed a convenient legal tender reserve for banks.

Such, then, were the most important financial measures adopted by the Government for the purposes of financing the war. They involve a virtual surrender of the gold standard, and, with the adoption of notes as a basis for settling exchanges between banks, there was ample opportunity to issue large quantities of notes. In the words of a practical banker: "This at once opened the door for the Commonwealth Treasurer to create vast deposits by simply printing notes and paying them in over the counter at the Commonwealth Bank. These notes created deposits in the books of the Commonwealth Bank. Against the deposits the Government drew its cheques. . . . These cheques transferred the deposits from the Commonwealth Bank all over Australia."[19] To this must be added the effect of war finance and the adoption by the banks of Australian notes as a legal tender reserve.

VI. Currency Inflation.

If we accept the definition of inflation that "it is only present in so far as the expansion is made greater than it would otherwise be in exactly similar circumstances by some definite act of interference on the part of the Government with the rules by which monetary and banking arrangements are governed,"[20] un-

[17] Prospectus of "the Peace Loan." A criticism of Australian war finance though interesting in itself, would overburden an already long article. Suffice it to say that the criticisms of war finance appearing from time to time in this Journal are applicable to Australia even more so than to England.

[18] "The support given by the banks of Australia and New Zealand to previous War Loan issues has helped to swell the sum total of advances appearing in the quarterly return." *The Australasian Insurance and Banking Record*, August, 1919, Vol. XLIII., No. 8, p. 614.

[19] J. R. Butchart: *Money and its Purchasing Power*, p. 29.

[20] A. C. Pigou in the Economic Journal, Vol. XXVII., p. 489.

doubtedly the currency of Australia at the end of the war was inflated and remains so at present. For the Government has prevented the export of gold, has created a huge note issue which in practice in inconvertible, and has by its financial policy encouraged an expansion of credit. The following table shows the growth of the note issue :—

TABLE VI.

Australian Note Issue, 1910–1919.[21]

	I. Gold Reserve.	II. Total Issue.	III. Percentage Proportion of I. to II.
	£	£	
Dec., 1910 ..	1,140,344	3,389,476	33·65
June, 1911 ..	3,227,287	7,986,223	40·41
June, 1914 ..	4,106,767	9,573,738	42·90
June, 1915 ..	11,034,703	32,128,302	34·34
June, 1916 ..	16,112,943	44,609,546	36·12
June, 1917 ..	15,244,592	47,201,564	32·29
June, 1918 ..	17,659,754	52,535,959	33·61
June, 1919 ..	24,273,622	55,567,423	43·68
Sept., 1919 ..	23,741,104	55,269,719	42·95

From June, 1914, to June, 1919, the note issue increased by nearly three-fold, but the reserve was at the high figure of 43 per cent. at the end of the period. The enormous increase from 1914 to 1915 in both reserve and issue is interesting and portrays the influence of the financial measures adopted by the Government. The increase in the reserve was due doubtless to the transfer of gold from the private banks to the Treasury and to the embargo on the export of gold. The maintenance of the proportion of reserve to liability was considered by many as a guarantee against redundancy. Among these were the Commonwealth Treasurer, who in 1918 maintained that the position was sound and that the reserve was adequate.[22] But the issue was certainly in excess of the actual currency requirements, and even the amount held by the public was almost double the estimated circulation of both gold and notes before the war. The Commonwealth Statistician estimates that prior to the war the amount of gold in circulation "lay somewhere between the limits of £5,700,000 and £7,800,000,"[23] while the notes in the hands of the public at the

[21] *The Budget*, 1919–20, *Parliamentary Papers*, 1919, p. 88.

[22] "I do not consider that we are within the danger zone. What should be the extent of currency reserves is largely a matter of opinion. I feel that at the present time the Australian note issue is perfectly safe." Mr. W. A. Watt, *Parliamentary Debates*, 1918, No. 32, p. 4329.

[23] *Commonwealth Year Book*, No. 9, p. 772.

outbreak of war amounted to £4,800,000. If the circulation of gold before the war be put at £6,800,000, then there was a total circulation of notes and gold of £11,600,000. According to the last Budget, the notes held by the public in June, 1919, amounted to £20,485,675, giving a total increase of 82 per cent. It is thus apparent that the action of the Government had increased the amount of money proper.

But the influence of the note issue was not confined to this factor, as may now be shown :—

TABLE VII.

Bank Deposits, 1901–14.

(In thousands.)

	I.	II.	III.	IV.	V.	VI.
Quarter ended June 30th.	Deposits. Not bearing Interest.	Deposits. Bearing* Interest.	Deposits. Total.	Coin Bullion and Aust. Notes.	Percentage of Reserve. IV to I.	Percentage of Reserve. IV to III.
	£	£	£	£		
1901	37,458	54,029	91,147	19,781	53	22
1906	41,036	65,479	106,515	22,681	55	21
1909	46,813	70,945	117,758	26,298	56	21
1910	55,234	74,657	129,891	30,150	55	25
1911	62,227	81,220	143,447	33,471	54	23
1912	65,409	84,398	149,807	34,121	52	23
1913	62,013	85,121	147,134	36,106	58	25
1914	70,195	89,014	159,209	41,447	58	26
Percentage increase of 1914 over 1909	50	25	35	57	—	—

* After 1912 the deposits given in the Commonwealth statistics include the deposits at the Commonwealth Savings Bank. These latter are given separately as at the end of each quarter and not the average for the quarters. Figures for the amount at the Commonwealth Savings Bank thus given have been deducted from "Deposits Bearing Interest" and thus also from "Total Deposits."

Bank deposits are shown here to have increased rapidly even before the war, the last five years producing an increase of 35 per cent. in total deposits and 25 per cent. and 50 per cent. in deposits bearing interest and deposits not bearing interest respectively. This division of deposits is very convenient; for those not bearing interest may be regarded as deposits on current account and subject to cheque, while deposits bearing interest may be regarded as fixed deposits. The former afford a good

indication of the degree to which banks are making advances to customers, while the latter show how far real deposits are being increased. It is interesting to observe from this table the growing tendency for banks to make advances, thus expanding their deposits subject to cheque at a much greater rate than their fixed deposits. But the proportions of reserve were maintained at fairly stable figures, being on the average 55 per cent. on deposits subject to cheque and 23 per cent. on total deposits, though both figures showed an upward trend. It is evident, however, that it was the practice of banks to maintain the proportion of reserve to total deposits and to deposits subject to cheque at these high rates. If anything occurred to increase the reserves, it would be possible to increase the deposits; and this is exactly what happened during the war period, as may be seen from Table VIII. :—

TABLE VIII.

Bank Deposits, 1914–1919.

	I.	II.	III	IV.	V.	VI.
Quarter ended June 30th.	Deposits.			Coin Bullion and Aust. Notes.	Percentage of Reserve.	
	Not Bearing Interest.	Bearing Interest.*	Total.		IV to I.	IV to III.
1914	70,195	89,014	159,209	41,447	58	26
1915	75,381	92,177	167,558	55,378	73	33
1916	92,822	90,641	183,463	58,312	63	34
1917	105,466	91,384	196,850	53,777	52	27
1918	112,262	97,276	209,548	56,360	50	27
1919	118,989	112,281	231,270	57,894	49	25
Percentage increase of 1919 over 1914	67	26	45	40	...	..

* See note to Table VII.

During the five years of war total deposits increased by 45 per cent., a rate of only 10 per cent. greater than the increase in the previous five years. But, while fixed deposits in the two periods increased at almost the same rate (25 per cent.), the deposits subject to cheque increased by 50 per cent. in the pre-war period and by 67 per cent. during the war. The proportions of reserve rose on the first shock of the war, but fell steadily after 1915, the fall being most marked in the proportion of reserve to deposits subject to cheque. But these proportions

remained comparatively high under the circumstances, the main reason for this being the convenient reserve found in the increasing issues of Australian notes. The relation between columns I. and II., however, is the most interesting feature of this table. While fixed deposits were increasing at the normal rate the banks were making more extensive advances than hitherto, thus increasing rapidly their deposits subject to cheque. This may be accounted for by (*a*) the assistance rendered by the banks in financing the Government purchase of wheat and wool for export abroad while shipping was scarce; (*b*) the parts the banks have played in financing the war; and (*c*) the large importations after the Armistice necessitating recourse to the banks.[24] These factors all tended to increase deposits subject to cheque and thus to promote an expansion of the currency. But it is doubtful whether the actual increase in deposits subject to cheque is a fair indication of the consequent increase in currency. This increase in deposits was caused, not through a trade boom, but in part by financial stringency owing to the shortage of shipping, and in part to assist the Government to purchase commodities necessary for its conduct of the war. Now in the former case the deposits were created mainly for the benefit of farmers, who would use them, not to create new industries, but to finance their ordinary undertakings. In this way it is probable that the velocity of circulation of credit would be much less than would be the case with a corresponding increase of credit advances for industrial purposes. In the latter case the Government used the deposits to purchase ordinary consumption goods mainly, for there were no great war industries, or to pay the soldiers, both of which actions would increase the purchasing power of the people. Thus only part of the increase in deposits must be regarded as producing a real addition to the currency, and the net effect on the price level would be less than is suggested by the actual figures.

The final evidence available of the expansion of the currency is to be found in the clearing house returns. These are given here only for Melbourne and Sydney, as the return for clearings at the other State capitals are not complete for the period under review.

These show an increase from 1914 to 1919 of 81 per cent. for Melbourne, 69 per cent. for Sydney, and 75 per cent. for Melbourne and Sydney together. The corresponding increases for the period 1909–14 are 25 per cent., 46 per cent., and 36 per

[24] *The Australasian Insurance and Banking Record*, Vol. XLIII, No. 8, p. 614.

cent. Here, again, there is evidence of a special expansion of the currency in war time, and from the above account it is clear that this expansion was due mainly to the financial measures adopted by the Government. Thus far there has been inflation in Australia, and it became most marked in 1918 and 1919, when, as shown by Table IX., there was an abnormal increase in bank

TABLE IX.

Clearings in Melbourne and Sydney, 1913–19.[25]

	I.	II.	III.	IV.
Year.	Melbourne Clearings.	Increase over Previous Year.	Sydney Clearings.	Increase over Previous Year.
	£	£	£	£
1913	297,256,000	6,206,000 (decrease)	348,741,000	18,120,000
1914	299,668,000	2,412,000	353,068,000	4,327,000
1915	299,294,000	374,000 (decrease)	357,803,000	4,735,000
1916	357,788,000	58,494,000	422,371,000	64,568,000
1917	*377,300,000*	*19,512,000*	*444,532,000*	*22,161,000*
1918	493,768,000	116,468,000	552,216,000	107,684,000
1919	544,211,000	50,443,000	590,097,000	37,881,000

[25] Statistics of the Bankers' Clearings in the several Australian States prepared by G. H. Roche, Secretary Associated Banks of Victoria. It should be noted that the statistics for Melbourne and Sydney are not comparable as measures of the volume of transactions in the two centres, for in Melbourne, where banking is distributed over a number of banks, the clearings are relatively much larger than in Sydney, where banking is concentrated mainly in the hands of two large banks. But the relatively greater rate of increase in the Melbourne figures during the war reflects the influence of the Government's financial measures.

clearings. Whether this inflation was the cause of the increase in prices must now be considered.

VII. PRICES AND THE NOTE ISSUE.

One way of measuring the relation between the expansion of the currency and the price level is to consider the connection between price movements and the note issue. It has already been shown that the issue of Australian notes was the main influence whereby a general expansion of bank credits was possible, and it would therefore appear that the fluctuations in prices might be in some degree dependent upon increases in the note issue. In order to test this, the average quarterly issue of Australian notes from July, 1914, to December, 1918, were compared with both wholesale and retail prices. The following table gives the simple comparison :—

TABLE X.

Comparison of Quarterly Issues of Australian Notes with Wholesale and Retail Prices, July, 1914, *to December,* 1918.

Date.	Australian Notes (millions).	Retail Prices Food and Groceries (Index) Nos.).	Wholesale Prices (Index Nos.).	Differences.		
				Australian Notes.	Retail Prices.	Wholesale Prices.
	£					
1914 3rd Quart.	12	116	118	—	—	
4th ,,	17	117	122	+5	+1	+4
1915 1st ,,	25	125	139	+8	+8	+7
2nd ,,	30	138	166	+5	+13	+27
3rd ,,	36	156	182	+6	+18	+16
4th ,,	41	152	154	+5	−4	−28
1916 1st ,,	43	155	150	+2	+3	−4
2nd ,,	44	152	149	+1	−3	−1
3rd ,,	45	149	150	+1	−3	+1
4th ,,	46	146	151	+1	−3	+1
1917 1st ,,	47	146	152	+1	0	+1
2nd ,,	47	147	159	0	+1	+7
3rd ,,	47	149	171	0	+2	+12
4th ,,	47	150	180	0	+1	+9
1918 1st ,,	51	151	188	+4	+1	+8
2nd ,,	53	153	194	+2	+2	+6
3rd ,,	54	150	195	+1	−3	+1
4th ,,	59	154	196	+5	+4	+1

This table suggests that there is general agreement between movements in the note issue and movements in wholesale and retail prices, but it by no means establishes a direct connection. It is necessary to try a further test. For this purpose the ratios between the successive numbers in each series were taken and a lag of three months allowed for the movements in prices; for, if there be any connection between the note issue and prices, it is certain that movements in the former would precede movements in the latter by at least one-quarter. This procedure, moreover, is suggested by Professor Nicholson's investigations in England. Table XI., p. 500, gives these ratios.

The correspondence in these series is perhaps more striking than was the case in the previous table. The ratios move in comparative agreement for the first three and the last ten terms, the movements for the remaining three being in somewhat different directions. But, though the movements are mainly in the same direction, the magnitudes differ considerably, more especially with the first five terms. This suggests that the effect of the sudden increase in the note issue was distributed over a period of a year or more; but it is interesting to observe that for

TABLE XI.

Quarterly Ratios of Notes, Wholesale and Retail Prices, with Three Months' Lag.

Year.	Quarter.	Notes.	Year.	Quarter.	Retail Prices.	Wholesale Prices.
1914	3rd–4th	142	1914–15	4th–1st	107	113
1914–15	4th–1st	147		1st–2nd	110	120
	1st–2nd	120	1915	2nd–3rd	113	110
1915	2nd–3rd	120		3rd–4th	97	85
	3rd–4th	114	1915–16	4th–1st	102	98
1915–16	4th–1st	105		1st–2nd	98	99
	1st–2nd	102	1916	2nd–3rd	98	101
1916	2nd–3rd	102		3rd–4th	98	101
	3rd–4th	102	1916–17	4th–1st	100	101
1916–17	4th–1st	102		1st–2nd	101	103
	1st–2nd	100	1917	2nd–3rd	101	108
1917	2nd–3rd	100		3rd–4th	101	105
	3rd–4th	100	1917–18	4th–1st	100	104
1917–18	4th–1st	108		1st–2nd	101	103
1918	1st–2nd	104	1918	2nd–3rd	98	101
	2nd–3rd	102		3rd–4th	103	101

later years, when the increase in the note issue was but slight, the increase in prices was also slight.

In order to test this agreement further, the co-efficients of correlation between these series of ratios were calculated, a test which is much more conclusive than the correlation between the crude figures of series which are both increasing over a period.[26] These co-efficients were $(0 \cdot 81 \pm 0 \cdot 023)$ and $(0 \cdot 51 \pm 0 \cdot 125)$ for the ratios of the note issue with the ratios of retail and wholesale prices respectively. Correlation between the note issue and retail prices is thus established to a very high degree, while in the case of wholesale prices the correlation, though not so pronounced, is certainly also established. In view of this it is possible now to affirm the close connection between issues of notes and movements in retail and wholesale prices, with the proviso that the exact nature of this connection is not yet clearly established. This will depend to a certain extent upon the degree of relationship between price movements and total currency, for the thesis maintained above is that the increased note issue made possible the expansion of bank credits. Other things remaining the same, this would cause an increase in prices in proportion to the increase in currency. But we cannot assume that other factors were unchanged, and therefore an attempt must be made to measure these factors. If now the equation of exchange can be calculated for Australia, then all these factors, except the influence of foreign trade, will be accounted for.

[26] Fisher: *The Purchasing Power of Money*, p. 295.

VIII. The Equation of Exchange.

Statistics for the measurement of the several factors in the equation of exchange, with the exception of the velocity of circulation of money, are available for the war period. For pre-war times the difficulty of estimating the amount of money in circulation[27] presents a formidable obstacle. Since, however, this factor is relatively a small item, the error involved in any estimates made for it is but slight in the final result. In the equation here presented the factors have been calculated as follows: (*a*) M. The amount of money in circulation from 1915 to 1917 is the average notes (in millions) held by the public for each year, weekly statistics of which are published by the Treasury. As gold had disappeared from circulation, this is a reliable method of estimating M for those years. For 1913 and 1914 the figures are based upon the pre-war estimates of the Commonwealth Statistician referred to above.[28] For the remaining years M is estimated on the assumption that there was a yearly increase of 5 per cent. in this factor. (*b*) V. The velocity of circulation is measured by 5 for 1913 as this figure brings MV to about one-twelfth of $M'V'$, a proportion suggested by Professor Fisher's estimates for America, after due allowance has been made for Australian conditions, where credit is doubtless relatively less important. This measure remains a constant for all years, a method which is sufficiently accurate for pre-war years, but not for the later years of war, when money circulated more rapidly. In Table XVI., however, where all the factors are given, a rough estimate of changes in V are included, based upon the assumption that the growth of urbanisation produced a slightly increasing velocity of circulation in pre-war days and that this was accelerated by war conditions. (*c*) M' and V'. The clearings at Sydney and Melbourne (in millions) are taken as measures from year to year of $M'V'$. Since deposits at the banks subject to cheque (not bearing interest) may be taken as measures of M', it is possible to obtain a measure of V'. Thus it has been possible to obtain a tolerably accurate measure of $MV + M'V'$

(*d*) T. The measurement of T presented more difficulties. Simple yearly production was discarded as an adequate measure,

[27] At present the information required for estimating some of the factors in total trade is available only up to the end of 1917. Hence the present investigation must stop at that year.

[28] *Commonwealth Year Book*, No. 9, p. 772.

and recourse was made to the plan adopted by Professor Fisher. The following is the formula used for the calculation of T :—

$$T=\left[3\left(\frac{3A+B}{4}\right)+\left(\frac{2C+2D+E}{5}\right)\right]\div 4.$$

Where A is a measure of Internal Commerce,
B ,, ,, Overseas Trade,
C ,, ,, Ton Miles of Railway Freight,
D ,, ,, Shipping,
and E ,, ,, Postal Business.

Internal Commerce was considered to be three times as important as Overseas Trade. Professor Fisher weights internal commerce six for the United States, but foreign trade there is relatively less important than in Australia. Shipping is included, because of the importance of water carriage and distance in Australia with so scattered a population. Any tendency to overweight this factor and railway ton-mileage is offset by the weight of three given to internal and external commerce $(A+B)$ in the final result.

The method of calculating A was similar to that adopted by Professor Fisher. Quantities of the following commodities produced each year were taken: wheat, wool, hay, butter, bacon and hams, gold, zinc, tin, coal, together with one-fourth of the total number of sheep and cattle in the Commonwealth. These quantities were multiplied by their respective prices for 1912 as a constant weight. To this was added the total horse-power used in factories in tens of thousands, as a measure of increasing productivity of manufactures, which is an important factor of recent years. The result thus obtained was divided by 2 to bring the figures as near as possible to 100 in 1913. B (Overseas Trade) was calculated simply by reducing the value of the exports and imports in any year to the prices ruling in 1913. This was done by means of the export and import index-number calculated by the Commonwealth Statistician and described above.[29] The results obtained may be regarded as an exact measure of the importance of overseas trade. The use of this index-number does not in any way interfere with the value of the final results of the equation. C (Ton-Miles of Railway Freight) is based upon the statistics of New South Wales, South Australia, and Tasmania, the only States for which statistics are available for all years. They may be regarded as reliable measures of this factor. D (Shipping) and E (Postal Matter) are based directly upon the tonnage of shipping cleared and entered and the letters dealt with

[29] Section II.

by the Post Office respectively. The results thus obtained are given in the following table:—

TABLE XII.

Estimation of Trade, 1901–17.

Year.	A.	B.	C.	D.	E.	T.
1901 ..	61	87	61	65	44	65
1906 ..	74	103	75	80	63	80
1910 ..	96	135	110	93	78	103
1911 ..	104	138	116	100	91	111
1912 ..	98	134	121	103	96	107
1913 ..	104	153	135	106	104	117
1914 ..	103	128	146	107	105	113
1915 ..	83	112	118	86	105	93
1916 ..	110	115	133	81	111	110
1917 ..	104	102	139	73	116	104

Owing to the difficulties of procuring reliable estimates of M and V' for years prior to 1913, the equation has been calculated only for the years 1901, 1906, 1910, 1911, and 1912 for this period. Otherwise the final results might be unduly influenced by figures for years when the data were not quite complete. This accounts for estimates of T being given for these years only. It is interesting to observe that from 1914 to 1917 T decreased by about 8 per cent. This would account for a small rise in prices, but it has been seen that currency factors were increasing in this period, and would thus tend to promote rising prices. But the influence of these factors may be seen from the equation of exchange calculated by the method outlined above.

TABLE XIII.

The Equation of Exchange, 1901–17.

Year.	M.	V.	MV.	M'V'.	MV+M'V'.	T.	$P=\frac{MV+M'V'}{T}$.
1901	7·0	5	35·0	338	373·0	65	5·74
1906	8·5	5	42·5	441	483·5	80	6·04
1910	10·0	5	50·0	536	586·0	103	5·69
1911	10·5	5	52·5	595	647·5	111	5·83
1912	11·0	5	55·0	634	689·0	107	6·44
1913	11·6	5	58·0	646	704·0	117	6·02
1914	11·6	5	58·0	653	711·0	113	6·29
1915	9·8	5	49·0	657	706·0	93	7·49
1916	13·9	5	69·5	780	849·5	110	7·72
1917	16·5	5	82·5	822	904·5	104	8·70

This table contains an estimate of the price level in Australia, the first of its kind known to the writer, by the method of measuring the influence of the factors entering into the equation of exchange. The figures given in P are a measure of changes in the general level of prices, and should be comparable with the index-numbers of wholesale and retail prices as measured

by the Commonwealth Statistician. Such a comparison is made in Table XIV. :—

TABLE XIV.

Comparison of P *obtained by Equation with Index Numbers of Wholesale and Retail Prices.*

Year.	I. P by Equation.	II. P on basis of 1000 for 1911.	III. Wholesale Prices, Index Nos.	IV. Retail Prices, Index Nos.	Percentage Difference of II on III.	Percentage Difference of II on IV.
1901	5·74	984	974	972	+ 0·1	+ 0·1
1906	6·04	1036	948	980	+ 9·3	+ 5·7
1910	5·69	976	1000	1005	− 2·4	− 3·0
1911	5·83	1000	1000	1000	0	—
1912	6·44	1104	1170	1129	− 6·0	− 2·7
1913	6·02	1033	1088	1095	− 5·6	− 5·5
1914	6·29	1078	1149	1144	− 6·1	− 5·7
1915	7·59	1302	1604	1416	−18·7	− 8·4
1916	7·72	1324	1504	1495	−11·9	−11·4
1917	8·70	1492	1662	1472	−10·2	+ 1·4

Though the disagreement between wholesale prices and the price level as found by the equation is as high as −18·7 per cent., the general trend of the series given in the table suggests that there is some connection between them. In order to test this, the co-efficients of correlation between *P* as found by the equation and the index-numbers for wholesale and retail prices respectively were calculated. These co-efficients were in both cases (0·98±0·008), which suggests almost perfect correlation. But this test with the crude figures is by no means conclusive, and the co-efficients of the ratios from year to year are required. These ratios are given in Table XV., from which the general trend of the series in each case may be observed :—

TABLE XV.

Year to Year Ratios of P *and Price Index Numbers.*

	Ratios of P.	Ratios of Wholesale Prices.	Ratios of Retail Prices.
1901–6	106	98	101
1906–10	93	105	102
1910–11	103	100	100
1911–12	110	117	113
1912–13	95	93	96
1913–14	105	106	105
1914–15	120	139	125
1915–16	103	94	106
1916–17	113	111	98

These ratios show that of nine changes in *P* six correspond with movements in wholesale prices and seven with movements

in retail prices. Thus a graph depicting the movements in these series shows considerable agreement, the crests and troughs roughly corresponding. Finally, the co-efficients of correlation between the ratios of P and wholesale and retail prices are ($0{\cdot}77 \pm 0{\cdot}089$) and ($0{\cdot}67 \pm 0{\cdot}121$) respectively, both of which establish a very high degree of correlation. Thus the equation of exchange may be regarded as true for Australia, a result which is interesting in itself, apart from the light it throws upon the situation brought about by the war. From 1914 to 1917 the currency side of the equation increased by 27 per cent., while trade decreased by 8 per cent., both of which factors would have produced a rising price level. In normal times a decrease in trade would be followed by a contraction of credit, and prices would not rise to the extent suggested by the decrease in trade. But in this case a decrease in trade was accompanied by an expansion of credit and currency, which is even more marked in 1918 and 1919, as will be seen from Table XVI., which gives the equation of exchange amended by allowing for an increasing V, and containing the currency factors for the years 1918 and 1919. Unfortunately, it is not yet possible to measure trade for these years. $M'V'$ is taken as bank clearings in millions, and M' as bank deposits (not bearing interest) in millions. In this way V' may be calculated and all the terms in the equation given. These figures should be regarded as measures only and not absolute numbers for each year.

TABLE XVI.

Equation of Exchange, 1901-19, *allowing for Changes in* "V."

Year.	M.	V.	M′.	V′.	MV.	M′V′.	MV + M′V′.	T.	P.	P with 1911 as 100.	P by equation in Table XIII with 1911 as 100.
1901	7·0	4·0	37	9·1	28	338	366	65	5·6	95	98
1906	8·5	4·6	41	10·7	39	441	480	80	6·0	101	104
1910	10·0	5·0	55	9·7	51	536	587	103	5·7	97	98
1911	10·5	5·2	62	9·6	55	595	650	111	5·9	100	100
1912	11·0	5·3	65	9·7	58	634	690	107	6·5	110	110
1913	11·6	5·5	62	10·4	64	646	710	117	6·1	103	103
1914	11·6	5·5	70	9·3	64	653	717	113	6·4	108	108
1915	9·8	6·0	75	8·8	59	657	716	93	7·7	131	130
1916	13·9	6·5	93	8·4	91	780	871	110	7·9	134	132
1917	16·5	7·0	105	7·8	116	822	938	104	9·0	163	149
1918	18·5	7·4	112	9·3	137	1046	1183				
1919	20·0*	7·8	119	9·6	156	1134	1290				

* Estimated from the figures for the first eight months.

The only important difference between P estimated in this way and P obtained from the previous equation is the very considerable rise in the former from 1916 to 1917 as compared with the latter. This gives a value for P in 1917 which corresponds very closely to the wholesale price index-number (166) for that year, though it differs considerably from the retail number (147). While it is believed that, in view of the enormous Government spending on consumption goods the assumption of an increasing V is correct, this equation is put forward as tentative only until a better measure of V can be devised. The results obtained in the previous calculation given in Table XIII. are sufficient to establish the equation for Australia. Table XVI. is interesting also for the estimate it contains of V'. This factor declined from 1914 to 1917, when it commenced to recover. As suggested above, the explanation of this is to be found in the nature of the bank advances.[30] It may further be noted that from 1914 to 1919 the currency side of the equation increased by 80 per cent., and even if we assume a permanent V' of 5, as in Table XIII., the increase is 73 per cent. It is evident that there was a great expansion of the currency in 1918 and 1919, and this no doubt is reflected in the increase in prices which has occurred during these two years.[31] Until the information to measure T for these years is available, the effects of this factor will not be fully known.

IX. Conclusion.

It is now possible to summarise the results of the investigation and to suggest the importance of the several factors affecting the price level. The following facts have been established:—

(i) The considerable increase in prices during the war cannot be explained by the operation of economic forces already present before the war.

(ii) The financial measures adopted by the Government during the war led to the abandonment in practice of the gold standard and to the issue of enormous quantities of Australian notes which were virtually inconvertible.

(iii) There was a considerable expansion of bank credit during the years 1914–17, but this expansion was greatly accelerated in 1918 and 1919. Such an expansion was possible because of the large issues of notes.

(iv) The action of the Government produced a greater ex-

[30] Section VI.

[31] It is interesting to note that in Australia during the war money in circulation (notes and gold) increased by 82 per cent., total currency (money in circulation and bank deposits subject to cheque) by 67 per cent., while the increases in wholesale and retail prices were 88 per cent. and 47·5 per cent. respectively. This result corresponds closely to the results obtained for other countries as given in the report of the British Government (Cd. 434) noted above.

pansion than would otherwise have taken place, and hence there was an inflation of the currency.

(v) This inflation was necessary to the Government for its methods of financing the war, but an expansion of credit was also caused by the necessity of assisting producers whose goods could not reach the European market owing to a shipping shortage.

(vi) There was a close connection between the issue of Australian notes and movements in prices during the war.

(vii) Trade from 1914 to 1917 decreased, but currency increased, and this suggests, other things being equal, that the expansion of the currency was an important cause of rising prices.

(viii) The equation of exchange is true for Australia in so far as this establishes a relationship without any suggestion of causal connection.

There still remain, however, three questions which are not definitely solved :—

(i) How far was the expansion of the currency a consequence of increased prices for exports and imports, which are so important in Australian economic life?

(ii) Though the equation of exchange is true, how far may the quantity theory of money be considered as established?

(iii) How far has the rise in prices been caused by inflation?

The only satisfactory solution of these questions is to be found through knowledge of the precise influence of the foreign market upon the Australian price level. Unfortunately, this can be stated here in general terms only. The following table gives a comparison of the increase in export and import prices compared with wholesale and retail. After 1913, owing to the change in the trade year, the years are given ending June 30th.

TABLE XVII.

*Comparison of Index Numbers.**

Year.	I. Import and Export Price	II. Wholesale Prices.	III. Retail Prices.†	IV. Cost of Living.†
1901	911	974	972	880
1906	921	948	980	902
1910	989	1000	1005	970
1911	1000	1000	1000	1000
1912	1067	1170	1129	1101
1913	1045	1088	1095	1104
1914–15	1141	1273	1208	1164
1915–16	1298	1590	1540	1344
1916–17	1443	1533	1371	1307
1917–18	1594	1834	1508	1343

* *Labour and Industrial Branch Report*, No. 9, p. 78.

† Average of the six capital towns.

Prior to the war these series correspond closely, as may be observed from the graph given in Report No. 9 noted below. After the outbreak of the war, though all series rise, their movements are neither commensurate nor always in the same direction. There is a fall in all the series except that in column I. in 1916-17, and the subsequent rise is more pronounced with both wholesale and retail prices than with the prices of imports and exports. It appears, then, that during the war there was considerable divergence between movements in the prices of foreign trade and local prices, whereas in pre-war days there was a rather close connection between the two. In explanation of this, it may be said that before the war, when the gold standard was in operation, prices in Australia could not deviate considerably from gold prices elsewhere after due allowance had been made for the cost of carriage. But the war has changed all this, for no longer does the gold standard act as a corrective to the foreign exchanges. As Professor Pigou has said: "Local action is free to push prices up without the normal corrective of an outflow of gold being set in motion."[32] This is the position in Australia, and the fact that our prices have increased by about half as much as the increase in prices in England[33] shows that our price level is much more a product of local factors than at times when the foreign exchanges are subject to normal control under the gold standard. There is also the further consideration that even in normal times the Australian price level is influenced only partly by external factors, for foreign trade is not as important as home trade. It is true that an increase in the import and export price level would necessitate an increase in the general level in Australia, but, other things being equal, the price level would reflect, say, only one-third or one-fourth the increase in exports and imports. Now from 1913 to 1917-18 the export and import price level increased by 53 per cent., but wholesale prices increased by 70 per cent., and retail by 40 per cent.,[34] both of which are higher than can be accounted for by imports and exports alone. It must therefore be concluded that local factors were operating in addition to the external factor involved in foreign trade.

It is now possible to suggest answers to the three questions as follows:—

(i) Inasmuch as there was an important increase in export and import prices, an expansion of the Australian currency was

[32] THE ECONOMIC JOURNAL, Vol. XXVII., p. 493.

[33] Cf. *Economist* Index Number.

[34] The corresponding figures for the period 1901-13 are 14, 12, 12.

required if prices were to be kept at the same level as in pre-war times. The currency expansion was, however, greater than was necessary for this, when account is taken of the fact that trade decreased in the period. The expansion of the currency was therefore only partly the result of economic causes beyond the control of Australia. To a greater degree it was the result of the Government's financial policy.

(ii) The quantity theory of money is true in Australia in the sense that it is true in every country where foreign trade is important. Any change in prices will be influenced by the exchanges, and in normal times these are controlled in the final resort by gold. Hence prices will ultimately depend upon the gold supplies, though there may be many fluctuations due to other factors, like the V's or T. An increase in prices abroad will be reflected in Australia by an increase in gold reserves and a higher price level. During the war the quantity theory operated in much more of a closed system, and local factors were of more importance.

(iii) The increase in prices may be explained by one or more of the three following factors: (*a*) Increasing prices in foreign trade; (*b*) diminishing trade and production; (*c*) expansion of the currency. All these factors operated in Australia, and the increased price level was therefore, in part, due to the inflation of the currency.

The general conclusion is that Australia could not have escaped an increase in prices, but the financial policy of the Government greatly accelerated the rise. Currency inflation, though by no means as marked as in other countries, has been an important factor in causing rising prices, and its influence will continue to operate until the gold standard is restored. This restoration will involve a restriction of the Australian note issue, the enforcement of gold as a basis for bank clearings, and the abolition of the embargo on the export of gold. But, while prices continue to increase abroad, these measures will not be a total safeguard against rising prices in Australia.

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REVIEW-ARTICLES

Business Men on Money

A Fraudulent Standard. An Exposure of the Fraudulent Character of our Monetary Standard with Suggestions for the Establishment of an Invariable Unit of Value. By Arthur Kitson. (London : P. S. King. 1917. Pp. xiv+233. 8vo.)

Money Problems. By Mr. Arthur Kitson. Criticised by Mr. Hartley Withers. (Stamford : Dolby Brothers, 1920. Pp. 141. 12mo.)

Freedom in Finance. By Oswald Stoll. (London : T. Fisher Unwin, 1918. Pp. 229. 8vo. Price 10*s.* 6*d.* net.)

Britain Victorious! A Plea for Sacrifice. By M. de P. Webb, C.I.E., C.B.E., late Chairman Karachi Chamber of Commerce, and Additional Member, Bombay Legislative Council. (London : P. S. King. Second Edition, 1920. Pp. 157. 8vo. Price 2*s.* 6*d.* net.)

State Credit and Banking during the War and After. By Robert Benson. (London : Macmillan & Co. Third impression, 1919. Pp. 57. 4to.)

It is a hard saying of Montaigne, and unjust to a humble quadruped, *Tout vice vient d'ânerie.* On this side of vice are many follies, stupid and obstinate, which may fairly be called asinine. Examples are common enough in the conduct of their money matters by individuals and by nations; and the historian who would complete the catalogue of the financial blunders of the Great Powers for the last seven years would find his industry taxed. Books and pamphlets critical of monetary theory and practice are at a time like the present only to be expected. It is more than can be expected that they should tell us much which is both new and true. But so much of one's life is spent in reading what turns out to be unprofitable that it is useful to receive a time-saving indication reinforced by a reasoned opinion. It is also perhaps something of a duty to combat by argument the

acceptance of views which, if incentives to unsound action, may be pernicious in consequences.

We have nothing to fear here and now from such follies as the belief that unlimited issues of paper money will make everyone wealthy or will finally solve the embarrassments of Governments. We are in no danger of such vices as vast paper issues with Lenin's avowed object of impoverishing the capitalist. The brain of the Labour party in this country is fully alive to the social menace involved in monetary inflation. Measures of this character inevitably bring their own castigation, though the whips of fate may descend upon the backs of the children and the children's children. It is easy to demonstrate that our standard of value is imperfect, and fatally easy to propound fallacious remedies. The danger of such proposals to untrained minds is especially great when they emanate from successful men of business whose whole interests are opposed to the dislocation of our economic machinery. There is a presumption, which may or may not be rebutted, that such writers know what they are talking about. Their sincerity is beyond question. Their earnestness is attested not only by their turning aside to authorship, but by the fervour of their language. Their credentials entitle their views to serious consideration.

But when we look to their writings we find that the eminent men of business are by no means in agreement with each other in diagnosis of our monetary troubles or in the remedies which they prescribe. To borrow a phrase of Macaulay, they are like an acid and an alkali mixed which neutralise one another. When they do agree to denounce the bankers and financiers we cannot fail to observe that these also are eminent men of business, who may fairly claim to know as much about money, credit, and banking as their critics, and would hardly be human if they did not say something about the cobbler and his last. The authority of the business man in the field of monetary science is thus weakened at its source, and we are freed to pass from generalities to a detailed examination of the various points of view.

There is more heat than light in the title of Mr. Kitson's book *A Fraudulent Standard*. The lawyers have never yet succeeded in defining fraud, have indeed considered it inadvisable to attempt to do so, human ingenuity in fraud being so versatile as to find a way round the boundaries of any circumscribed definition. But it is agreed that fraud involves a guilty mind and an intent to trick or deceive. To say that Governments which have adopted a gold standard have done so with any guilty intention is to assert what is not proven and not provable. The purchasing power of

gold may rise or fall, and the changes may benefit or damnify some members of society to the injury or advantage of others. But Governments have not yet been inspired with sufficient foresight to know which way the cat will jump, and when they have chosen a gold standard have done so because they believed it to be the least jumpy commodity suitable for use as money. A lends B £100 in gold money for a prescribed period, and on the due date B repays £100 in gold. Is honesty satisfied? Not necessarily, Mr. Kitson would say. If there has been a general fall in prices of 20 per cent. during the currency of the loan, £80 would now supply A with the same purchasing power as he lent to B, who has thus to provide 25 per cent. more in value than the principal sum he borrowed. He received cheap pounds and pays back dear pounds. The gold standard defrauds him by 25 per cent. But the contract was not made in "general purchasing power" or in "pounds of invariable value." So far as the change in value goes A is no better off than if he had kept the money in his own hands. He has had to take his chance of a general rise in prices, in which case perhaps Mr. Kitson would say A is defrauded. There is in reality no fraud in the matter. The rise or fall is at owner's risk, and is so understood by both parties throughout the transaction. We may feel strongly that a tabular standard—working for example through such a change in the official "price" of gold as is proposed by Professor Irving Fisher—would be more scientific, less likely to upset expectations than a gold standard, and in every way a reform of the highest value. If we subscribe, as we do, to the statement that a gold standard is gravely imperfect and ought to be reformed, we may be inclined to shake our heads over the word "fraudulent" and pass on with a charitable murmur against unfortunate epithets.

But this we are not allowed to do. It is insufficient to acquit A and B and Governments in general of the vice of fraud. They are, it seems, guilty of what Montaigne deems to be the parent of vice. They have been so foolish and ignorant as to allow themselves to be duped by the banker, financier, and moneylender into adopting a standard of value which the true villain of the piece manipulates to his own advantage. He it is who defrauds the community. We are told that the gold standard "has placed the fortunes of all engaged in trade and industry wholly at the mercy of the world's moneylenders. They have the power to stimulate industrial prosperity and to destroy it by increasing or diminishing the available gold supplies as well as by the mere manipulation of credit. Just now a few of their number are contemplating the

most gigantic deal that has probably ever been conceived," to wit, "the doubling of national and incidentally all other debts by doubling the present value of our monetary units," under the cloak of deflation, and "restoring what they term our good, sound, honest gold currency." If this plot is successful "it will mean either the complete enslavement of the people of this country to a soulless money despotism for ages or compulsory repudiation of the debt." "The world's financiers have the power to acquire unlimited wealth by merely juggling with prices," and this power exists "mainly by reason of the legal establishment of the gold standard."

A case can be made out against the stability of the gold standard, and a stronger case against the standard diluted with great quantities of uncovered paper money. This adulteration, which has worsened the standard in point of stability, is admired by our advocate of an invariable unit of value. "The first man, whether statesman, banker, moneylender or labour leader, who attempts to destroy the people's money—the one pound Treasury notes—should be publicly hanged as a salutary lesson *pour encourager les autres*." We should regret to see this treatment meted out to anyone who destroyed our promissory notes, and the indictment would be less fearsome if we substituted "the people's IOU's" for "the people's money." In 1791 the poor economist Linguet, who had kept quiet during the Terror, was dragged before the Revolutionary Tribunal on a report that some years before, in his writings on taxation and the corn trade, he had deprecated a bread diet, regarding it as a slow poison. He was guillotined forthwith *pour avoir injurié le pain, la nourriture du peuple!* "The people" must be dragged in to justify these public executions. Under the Defence of the Realm Act it was an offence to decry the Treasury notes by speech or writing; but anyone is surely more deserving of being inscribed on a roll of honour than of public execution if he makes a holocaust of such notes as he owns. Here again we may admit that sudden and violent deflation would be a rough jolt to society, though its dangers can be easily overstated. If deflation occurs it will be slow enough for most of us, in any case.

What, then, does Mr. Kitson propose? He desires to see the banks nationalised, the Bank Act of 1844 and the law of legal tender repealed, and a unit of invariable value set up as a monetary standard. This unit should be $\frac{1}{x}$th part of the wealth of the community. If W represent this wealth and P the new

pound or unit of value, $\frac{W}{x} = P$. We are told that we may assign any value we please to x. If W be determined it follows that we may give any value we please to P. Why not, then, dispense with the trouble of evaluating W by making $P = mP'$ where P' is the present pound and m our arbitrary factor? P once arrived at is to be kept invariable by increasing or decreasing the issues of paper money according to the movements of the index number of general purchasing power. Paper money must not be destroyed (because this would call for public executions), but the Banks—now Government banks—would do what is needed "by the mere act of refusing banking accommodation." That this mere act might bring one business after another toppling down like a house of cards does not seem to trouble the author. He appears to regard banker's credit as a kind of fiat money, which the banker can expand or contract to any extent at will. He would have credit plentiful and cheap, "issued against wealth in a safe proportion, say from 50 per cent. to 75 per cent. of its legally appraised value," and without interest, usury being an invention of the devil. A charge of 1 per cent. per annum might be made for insurance. It is hardly necessary to explain to any student of Jevons or Walker or Nicholson or other writers upon bankers' money that the plan will not march. Bankers are strictly limited in their power of granting credits: the prices which they charge for credit are, like the prices charged by other eminent men of business, determined by factors of supply and demand over which they have little control; and when they overtrade in credits they follow the round with which Lord Overstone has made us familiar. Witness the Japanese banks of to-day.[1] It is a fanciful picture to represent the financier as forcing down prices to increase the real value of his capital. When we remember that these omnipotent autocrats have allowed prices to go up often by leaps and bounds for the last quarter of a century, we must rub out the horns, tails, and hoofs from their portraits. More careful examination of the possibility of equating a variable pound to commodity prices instead of equating prices to an invariable pound may yet convert Mr. Kitson into a good Fisherite. He sees the goal, and thinks he sees evil spirits in the path, but he will never reach his journey's end through the morass which he takes for a route. One cannot help feeling that perusal of such a work as Mr. George Rae's *Country Banker* might enlighten him upon the reasons why a banker is not always able to lend readily even upon such securities

[1] This was written in July, 1920.

as land and houses, and why a custodian of other people's money repayable on demand must be cautious not to lock up so much of it in loans to be redeemed sometime and somehow as to imperil his capacity to meet the drafts upon him for legal currency. If his margin of available cash resources is dangerously low compared with his cash liabilities he can only protect himself and his creditors by restricting credit, raising the rate, reducing or refusing new credits, and calling in outstanding loans. It is irrational to regard such a policy as malevolent or short-sighted.

Sir Oswald Stoll receives the benediction of Mr. Kitson. But their alliance of ideas is very limited. *Freedom in Finance* claims that the British citizen should "participate as a right in the control of credit, *alias* funds, *alias* money, which is fundamental to successful industry, trade and commerce." The author shows that he is well aware of the distinction between money and credit, but he is obsessed by the fear of a Money Trust which will empower a few individuals to hamper trade and industry by the strangulation of credit. He sets a good example to social reformers by opening his book with a "First draft by an eminent Parliamentary draftsman of an Industrial Loans Bill." The underlying idea of his argument is that the funds deposited with bankers are not their own, that the credits which they grant or refuse are not their own, but are a social creation and ought to be socialised or nationalised. Under his scheme no person is to be allowed to carry on the business of banking if he refuses to make industrial loans upon approved securities. These securities of the value of at least £200 are to be valued by official valuers. The owner is to be entitled to a loan equal to one-half of the official valuation, is to pay 5 per cent. of the loan to the Treasury as a guarantee against loss, and to pay the Bank its bank charges for keeping his account but nothing in respect of interest, the Bank being guaranteed by Government against loss on the transaction. Elaborate machinery is set up for Treasury regulation, for appeals from the refusal of bankers to make advances, for an Advisory Council of business men, etc., etc. We presume that if a bank runs short of funds the Treasury will have to print off notes to enable it to meet the demands of its depositors. And yet, oddly enough, Sir Oswald Stoll is bitterly sarcastic about the defects of such notes. He favours the good, sound, honest gold currency which excites the wrath of Mr. Kitson It appears to him that "the repeal of the Bank Act could but expand and perpetuate the evil" of a depreciated currency. What he is driving at is greater elasticity of credit; but he does not sufficiently appreciate the fact

that expansion of credit in its effect upon prices is open to many of the objections which are urged against soft money, and that bubbles are liable to burst even though they be blown by Government.

Here again it may be conceded that the Act of 1844 is inconveniently rigid; and there are many sober advocates of allowing the Bank of England to issue notes against a limited amount of approved gilt-edged commercial paper of short currency, which the Americans call self-liquidating. But the plan proposed by Sir Oswald Stoll savours of burning down the house to roast the pig. To say nothing of the dangers of admitting a *right* to have credit (or in plain English a right to borrow), without regard to the circumstances or convenience of the banks or their duty to their other clients who lend without borrowing, we should pity the citizen who had to face the cumbrous and unsympathetic ordeal of an appeal to government officials to overrule a reluctant bank. The public safeguard lies not in the good will of the banker but in his self-interest, which makes him welcome safe and profitable business, and not drive it into the hands of others. If the day should ever come when the bankers combine to be dictatorial and unreasonable, and if the public are unable to protect themselves by their own organisation and resource, some statutory control will become necessary. But we believe this danger to be imaginary. The Colwyn Committee to which Sir Oswald Stoll expounded his proposals have not published the evidence tendered to them. If the report in the *Freedom in Finance* is a full account of their cross-examination of our author we must admit that they did not take his proposals very seriously. The few questions asked are of a perfunctory character and are in some cases evidently based upon imperfect appreciation of the point of view of the witness and the real nature of his scheme.

In an *Open Letter to Lord Milner*, Sir Oswald Stoll urges that "what water for his crops is to the Egyptian cultivator, credit now is to the whole field of British industry." Credit is not always used for productive purposes, and some would-be productive enterprises come to grief. But even if we leave all these out of account the metaphor may be worth pursuing. Egypt has not an unlimited supply of water. The amount granted to each cultivator has to be carefully rationed and controlled. If the fellahin were left to themselves they would undoubtedly injure their crops by excessive watering, so long as they can get water when it is scarce. But the danger of a very high Nile requires careful precautions and vigorous counteraction, or crops and villages alike will be swept

away. The comparatively small drawback of a few cases in which production might be increased in this country, if more credit were forthcoming on easy terms, bulks very large in the author's mind. But the evils of excessive credit have not received much of his attention. The question of prices is left in the background throughout.

Mr. Webb's *Britain Victorious!* is an appeal to us after a victorious war to win to victory in peace, which is said to be impossible so long as we are weighed down by a crushing national debt and are being driven by a flood of rising prices on to "the rocks of (*a*) still higher prices; (*b*) increasing difficulties in developing our export trade; (*c*) the partial starvation of the people and consequently (*d*) grave social eruptions in all directions." To conjure these evils he would have a great levy on wealth—a levy on capital he denounces as "unthinkable"—voluntary to start with, and if inadequate results are obtained compulsion must be resorted to. The State should control credit and open a State bank, should also control the supplies and prices of food, clothing, fuel, and shelter from the elements, as well as all sea, land and air transport, ports and terminals. How we are to become richer as a nation by transferring our money from one pocket to another and tightening the yoke of bureaucracy upon our necks is not very clear. It does not need much perspicacity to see that we have a long row to hoe before we can clear up the aftermath of the financial consequences of a destructive war, but hard work in industry and commerce and sanity in spending are our only hope. Short cuts of government intervention and devastating taxation may well prove to be the longest way round, and Mr. Webb's desire by hook or crook to make a rapid return to pre-war prices must send a cold shudder through some of the other men of business whose writings we are considering.

Mr. Benson's *State Credit and Banking* is written with remarkable ability. It is a plea for a new Central Institution to "do for the market in Government Securities what the Bank of England does for the Bill market." The author has a more highly developed "City" sense than any of the other writers we are considering and many of his observations are acute and important. The chapters on German Banking, the Experience of America, and the Experience of France are useful contributions to the subject, and together with the diagrams and statistics prepared with the assistance of Mr. J. A. Todd, Mr. Joseph Kitchin, and others, supply material which the reader will desire to preserve for reference even if he is not convinced by the argument. The

essence of Mr. Benson's proposal is that the owner of Government securities should have the right to borrow upon them "with (say) 10 per cent. margin." His reply to critics who are afraid of unrestricted credit of this kind is that they "have not made allowance for the safeguard which is offered by the power to raise the rate of interest; for loans are not permanent at the same rate, but are made for periods of (say) seven days to ninety days, and renewable. The safeguard is the rate on renewal." There must, we imagine, be very few bankers who are unprepared to do business on some such terms as things are, and we do not expect that any striking changes for the better would result from putting compulsion upon them. The Stock Exchange is open for the sale of securities without any 10 per cent. margin, and if we press home upon the grumbler the question: "Why don't you sell your securities if you wish to liquefy them?" we shall probably get at the reason why the pawning of them is not so easy as he would wish. A high Bank rate and rapid deflation are the evils most feared by Mr. Benson. We agree with him that a dear money policy is at present open to grave objections and that "a ten per cent. Bank rate no longer brings gold from the moon"; but surely an expansion of effective demand for credit is not the way to keep the rate low. He does not go so far as Sir Oswald Stoll, seeing good reason why land and buildings and going concerns should not be regarded as a satisfactory backing for compulsory credit. But his statement that he proposes that Government "should guarantee its own signature" does not appear to us to be a fair description of his plan. So long as Government pays the agreed interest and redeems the security (if it be redeemable) on the due date, there is no question of a violation of its guarantee or its signature. We have borrowed dearly enough. To give the holders of Government securities additional money's worth for the stock they hold, in the shape of special gratuitous privileges or facilities, does not, on the face of it, seem very good business for the taxpayers, and if it sent up the price of such securities would tend to bring down the price of others. The fear of a rapid return to low prices of commodities does not alarm the plain man much more than a fear of snow in harvest, and would not be unbearable even if it came. The working classes have had enough object lessons in the difference between real and money wages, and are not likely to plunge us into civil commotion provided their standard of comfort is not lowered, or, in other words, if their wages keep pace with the index number of personal experience. A fall in prices, if rela-

tively more rapid here than in other countries, might stimulate our export trade and afford enough aid to public finance through the channels of industry and commerce to offset the difficulties which would be encountered in other respects. The *pros* and *cons* of high prices and low prices and the movements of prices in general involve the balancing of many factors beyond these. It would go beyond the scope of this notice to enlarge further upon this proposal than to add that, admirable as much of the essay is, the author has not made out a convincing case for the experiment he recommends.

It is natural enough that business men to whom credit is a necessary of life should desire to see it cheap and abundant. But they ought to know, better than most people, that control of prices and denunciation of vendors are ineffective instruments to cheapen either credit or goods. "Things are in the saddle and ride mankind." Even bankers, financiers, and money-lenders are part of mankind.

HENRY HIGGS

SOUTH AFRICAN CURRENCY

Union of South Africa. Report of the Select Committee on Embargo on Export of Specie. Printed by order of the House of Assembly, June, 1920. (Cape Town : *Cape Times*, Ltd., Government printers. Pp. xlvi + 574 + xxvi.)

IF we had been asked in 1913 "What are the chances of South Africa deserting the gold standard in case of a European war?" we should probably have unhesitatingly rejected the idea as beyond the bounds of possibility, and, if we knew a little history, we should have backed our opinion by quoting the classic case of California, the gold-producing State of the American Union, holding firm to gold during the American Civil War. But now, at the end of September, 1920, the South African pound sterling is not only depreciated far below the value of the 113 grains of fine gold required to make a sovereign (or its equivalent, $4·87 in Canadian or American gold coin), but well below the 91 grains which will buy 4·87 Canadian paper dollars, and even a little below the 82 grains which will buy an English, Australian, or New Zealand paper pound. To any Rip van Winkle who went to sleep in 1913 and awoke in 1920 this would be an astonishing phenomenon. The great gold-producing Dominion with a paper standard more below its par with gold than any other in the British Empire!

If our Winkle's awakening took place in South Africa and he inquired of the most intelligent and well-informed persons he would be likely to meet there why these things were so, he would probably be told that the cause was a scarcity of gold in South Africa due to its illicit exportation. "Illicit exportation!" we can imagine him exclaiming, "do you mean to say that you have prohibited the export of gold and yet have not enough? Why, when I went to sleep you were exporting over thirty millions a year, and yet you had plenty—more than enough, in fact, as the value of gold in other commodities was falling. What has happened? Have the mines given out?" "Oh dear no!" the answer would be; "of course, the gold output goes on being exported quite openly and lawfully. That is only a 'commercial product,' just the same as wool (see Minutes, Q. 202). The exportation which has troubled us and which we have tried to prevent, is the exportation of gold *coin*, and when we said 'gold' just now we meant that, as you would have known if you had not been asleep all this time." Winkle, unsatisfied, might go on to inquire why it should be legitimate and healthy to export 440 oz. of uncoined gold and ruinous smuggling to export exactly the same weight of fine gold in the form of 1869 sovereigns, but to this question it is not likely that he would get any intelligible answer.

The explanation of the whole puzzle, like most explanations of economic facts, must be historical. During the war it was supposed to be a military measure of the first importance to "prevent gold getting into the hands of the enemy," and it was believed that one good measure towards this end was for each country, including in that term detached parts of the British Empire, to prohibit all unlicensed carrying out of gold, not only to the enemy, but to any part of the world. The war seems also to have somehow revived, not only among belligerents, but even among neutrals, the mediæval fear of losing the currency. Consequently prohibitions of the exportation of any kind of gold, and also of the melting down of gold coin for any purpose whatever, became almost universal. A century ago such legislation was everywhere ineffective and consequently gets little more than passing notice in the controversies of that time. But in the modern world, in islands such as the United Kingdom, Australia, and New Zealand, conditions are different, and infractions of the law can be kept within such small limits as to become practically unimportant. This makes it possible in such countries to issue enough paper money to bring the value of the unit of account

below its par with gold without taking away its redeemability in (or, as is usually said, its convertibility into) gold coin. As someone said in one of the old bullion debates, gold imprisoned in the coin is degraded to the level of the paper. We do not run to the Bank of England and demand sovereigns in exchange for our Bradburies, because we know that, as law-abiding people, we cannot use sovereigns otherwise than as currency, and that as currency they are worth no more than Bradburies, though as free gold they would be worth 39 per cent. more. When a paper currency is convertible into free gold, it cannot go below its par with gold, because its convertibility limits the quantity of it which can be put into and kept in circulation: when it is convertible only into a coin which cannot be used otherwise than as currency, it can be issued just as freely as if it were wholly irredeemable, and with the same effect on the general purchasing power of the unit of account. Hence the fall below par of the British and Australasian pounds.

On the outbreak of the war the British Government induced the mine-owners to agree to hand over the whole output of the mines to it, so that the Union of South Africa had no need to concern itself with the export of uncoined gold; but it very naturally fell in with the prevailing fashion of prohibiting the export of coin. It further proceeded to make it easier for the banks to enlarge the paper currency by allowing them to issue £1 and 10*s*. notes, the old limit having been £5. If the exportation of coin could have been stopped as effectively as it was in the United Kingdom and Australasia, the South African banks would then have been in as proud a position as the Bank of England under the Restriction of 1797–1821, and nothing except their fear of the eventual removal of the embargo on export would have stood in the way of South African pounds falling to the value of Polish marks or Russian roubles. It is true that, unlike the Bank of England notes of 1797–1821, their notes were still convertible into coin, but that convertibility would have been a hollow mockery like the present convertibility of the Bradbury. But South Africa's intercourse with the rest of the world is not so easy for a Government to control as that of the United Kingdom and Australasia, partly because the Union is not an island, and partly because two sections of the population—Natives and Indians—do not belong to the governing democracy and also have connections with the outside. Consequently extensive smuggling out of gold coin was possible, and was sure to take place if made profitable.

This prevented the depreciation of the unit of account, the South African pound sterling, having quite the easy course which it had in the United Kingdom, Australia, and New Zealand. When the South African banks had issued so much paper that the South African pound became worth appreciably less than 113 grains of fine gold, they were asked to fulfil some of their promises to pay pounds by handing over sovereigns, and the sovereigns thus obtained were smuggled abroad and sold for more than the foreign currency equivalent of a South African pound. In order to meet this demand for sovereigns the banks were obliged to buy raw gold in London "at a premium," *i.e.*, paying more than a South African pound for each 113 grains, and getting it coined in the usual way at the London Mint. In other words, the penalty which they had to pay for issuing too much paper was that they had to buy a certain number of sovereigns at perhaps 26*s*. or 28*s*. and pay them out at 20*s*. If the "leakage" of gold coin, as they appropriately called it, had gone on growing, it would have amounted to the same thing as a removal of the embargo on export, and have forced the banks to reduce their paper till one pound was again worth as much as 113 grains of gold. During the spring of 1920 this influence was sufficiently strong to cause an appreciable rise in the gold value of the South African pound and to make it break away from the United Kingdom pound, which it had up to that time closely followed.

It became clear that mere prohibition of the export of gold coin was not a sufficient protection for an over-issue of paper. If South Africa was determined to have a paper currency depreciated against gold, the obligation to redeem the paper in gold coin must be removed. Otherwise it would be better to recognise the situation formally by removing the ineffective embargo, which was only giving illicit profits to law-breakers.

The long-run interest of the gold-mine owners and workers, properly understood, was entirely in favour of the earliest possible removal of the embargo and return to the gold standard. The gold mines, in South Africa, as everywhere else in the world, are suffering from the diminution in the purchasing power of their product caused by the disuse of gold in circulation and reserves by the principal countries of Europe. The direct importance of South Africa as an absorber of gold for currency purposes is no doubt almost negligible, but as the chief gold producer of the world her example carries great weight. If South Africa, producing every year perhaps five times as much gold as she required for her whole stock of gold currency before the war, cannot afford

to have a gold currency, who can? It is not well for the village bootmaker to declare boots expensive and unhealthy and to parade himself and his family barefoot. To the leather merchant there is nothing like leather, and to the Transvaal there should be nothing like gold. Had the Union of South Africa never gone off the gold standard, the mine-owners might have been trusted to favour its continued maintenance.

But the standard having been abandoned, and the unit of account having been depreciated against gold, when the process was obscured, so to speak, by the smoke and dust of war, the mine-owners found that on the one hand the costs which they had to meet in South African currency had risen, owing to the increase of money-wages and prices caused by the additional paper, and most of them seem to have believed that, though a return to the gold standard would cause some diminution in the monetary amount of these costs, the diminution would not be equal to the loss which they would suffer by having to give more of their raw gold for a given amount of South African money. With the South African pound worth 82 grains, 82 grains plus cost of marketing will pay the workman in South Africa £1; the mine-owner asks himself in some complicated form: "If the pound rises to 113 grains, shall I be able to persuade that man to take $\frac{82}{113}$ of £1, which is 14*s.* 6*d.*?" No doubt there would be a loss under this head, which, though only temporary, as all prices adjust themselves in the long run, would never be directly recovered; but this special and limited loss ought to be faced in view of the general advantage to the gold industry of the restoration of the use of gold currency. The mine-owners, however, with the important exception of Mr. Samuel Evans, have not risen to this height, and are consequently for the most part but lukewarm supporters of a return to the gold standard.

At the end of March, 1920, the House of Assembly appointed a Committee "to inquire and report upon (*a*) the effect of the embargo on the export of specie upon the cost of living; (*b*) the desirability and practicability or otherwise, with a view to improving the economic conditions of the Union, of removing the embargo and of modifying the statutory provisions at present in force in regard to currency and banking."

Houses of Parliament in the British Dominions, and in the mother-country also, would do well to recognise the fact that they do not contain experts on every subject, and are consequently incapable of appointing committees suitable for every kind of inquiry by selecting members entirely from their own body. It

is no use to say that they will call, and be guided by, the evidence of expert witnesses. The expert witness who offers himself is by no means always the best who can be obtained. The wholly inexpert committee does not know whom to call, and when it has before it the right or the wrong expert, it does not know the right questions to ask him. The South African Committee of members of the House of Assembly, set up to consider currency and banking, consisted chiefly of men eminent in their particular line of life and possessing very considerable ability, but it does not seem to have included anyone who had any training in the theory of the subject. It would probably have been much more effective if it had included in its number either or both of the two Professors of Economics (Dr. Lehfeldt of Johannesburg and Mr. Leslie of Cape Town) whom it called as witnesses. Whether they were right or wrong in their recommendations, professional training and the practice of teaching would have enabled them to put more searching questions than the inexpert Committee was able to ask.

As it was, the Committee seems to have been clay in the hands of Mr. Henry Strakosch, a very able witness, usually resident in London, now managing director of one of the large gold-mine combinations, who had formerly passed through excellent practical experience of foreign exchanges in Europe and more recently had been concerned in the marketing of the gold product of South Africa in the world at large. He had written a pamphlet on what ought to be done in South Africa. The Committee began by considering this, and his evidence upon it occupies the first 162 of the 574 pages of evidence, although for 125 pages the questions are omitted, in order presumably to shorten the minutes.

Mr. Strakosch admitted that South African currency was depreciated against gold, that to maintain currency at a parity with gold it must be convertible into gold, and that to maintain foreign exchanges at par, coin and bullion must be freely exportable and importable, but held that South Africa could not "afford to re-establish and maintain its currency on a true gold basis" at the present moment. As usual, when currencies once become depreciated, it is a case of "jam yesterday and jam to-morrow, but never jam to-day." The argument may be put under two heads: (1) It is undesirable to raise the South African pound to the value of 113 grains of gold; and (2) if it were so raised, it would be impossible to keep it there.

(1) The first head does not call for much comment. Mr.

Strakosch adduced the objections which are commonly made to raising the value of the unit of account without adding anything fresh, and without any attempt to balance the advantages and disadvantages of a fairly rapid return to the gold standard against the advantages and disadvantages of his own plan of "wait and see." He laid much stress on the theory that if South Africa were on a gold basis while the United Kingdom was on a lower Bradbury basis, the United Kingdom investor would be deterred from investing in South Africa and the South African investor would be attracted to invest in the United Kingdom by the belief which each would have that the Bradbury is bound to rise to 113 grains of gold in the near future. He overlooked the fact that this belief is waning, and is likely to be further shaken by the coming collapse of Continental paper currencies, so that gold standard countries are likely to come into greater favour with the investor, and he forgot that the coming of an alteration in the purchasing power of money affects what will be offered to the investor as well as what he will accept. If South African pounds were worth 113 grains and going to stay at that, while Bradburies were 82 and going to rise soon, it is true that a lender would prefer a long-term or a perpetual 6 per cent. in Bradburies to the same rate in South African pounds; but it is equally clear that the borrower could well afford to offer a much higher rate of interest if the loan were contracted in South African pounds; since if he contracted in Bradburies he would soon be paying the same annual value as if he had received South African pounds, whereas, in fact, he only received on loan the same number of United Kingdom pounds, each worth only $\frac{82}{113}$ as much as a South African pound.

(2) On the second head, the impossibility of keeping the South African pound at 113 grains, supposing it to have once got there, Mr. Strakosch misled the Committee by completely ignoring the orthodox doctrine of the exchanges as taught by the economists. That doctrine has been so snowed under by neo-mercantilism in these latter days that even in the pages of an economic journal it may be useful to recapitulate it.

It is founded on (*a*) the truism that a currency or unit of account is valued for what it is worth, that is, for the commodities and services (let us say "goods" for short) which it will buy, and (*b*) on the well-established economic principle, to which currency is no exception, that variations in the supply of an article affect its value or power of buying, increases tending to reduce, and decreases to raise, its value. For an example of the truism

we may say that Englishmen and others value American dollars because, and in so far as, those dollars will buy American goods; Americans and others value English pounds because, and in so far as, those pounds will buy English goods. If dollars rise in purchasing power (in other words, if prices of goods fall in America) while pounds fall in purchasing power (in other words, if prices of goods rise in England) or remain stationary or rise less rapidly than dollars, fewer dollars will be worth as much as a pound, *i.e.*, the exchange value of dollars in pounds will rise, and that of pounds in dollars will fall. For examples of the general principle that increase of supply tends to reduce the value of an article we need not search; everyone has every-day experience of its truth: that currency, whether metallic or paper, is an exception to the rule is believed by none but a few currency cranks who have never been able to produce the smallest logical justification for their view and have always had to fall back on gross misrepresentation of historical facts.

The truism and the principle together involve the consequence that the exchange between currencies can be kept close to a given rate by due regulation of their supply, whether that regulation is conscious or automatic. The Indian Government, by conscious regulation of the supply of rupees, kept the rupee approximately equal to one-fifteenth of 113 grains of fine gold, and therefore at a stable rate with all the gold-standard countries for nearly twenty years before the war. Conscious regulation is simple enough; automatic regulation is a little more difficult to understand. It takes place where two or more currencies are each in part at least composed of something which can be used at will for purchases in either or any of the countries concerned. Before the war, for example, English pounds and American dollars were both in part gold pieces which could be lawfully transported from the one country to the other and be converted from one coin into the other at small expense. In practice the situation was very little different from what it would have been if sovereigns had been legal tender in America for $4·8665 and dollars legal tender in England for 4*s*. 1·32*d*. There could be no great variation in the exchanges between two or more countries linked together in this way, because if the purchasing power of the unit of currency fell for any reason in one country while the unit in another rose, remained stationary, or did not fall so fast; in other words, if prices of goods rose in one country while in another they fell, remained stationary, or did not rise so much, it immediately became profitable to send gold money from the first

country to buy goods from the second. This promptly equalised matters, and stopped the tendency of the exchange-rate to diverge from the normal: that it must do so becomes obvious when we reflect that, for example, the sending of gold from England to America and the bringing of goods from America to England at once made gold scarcer in England and more plentiful in America, while at the same time it made goods scarcer in America and more plentiful in England. To the objection, sometimes urged, that gold was only a small portion of the currencies, the answer is, in the first place, that when a thing is nicely balanced a touch will make it swing, and, in the second place, that the existence of a very large paper currency beside the gold had no tendency to counteract the influence of movements of gold, but rather the contrary, inasmuch as the banking organisation of each country secured that when gold left it the paper currency did not increase to take its place, but diminished, and that usually by a greater absolute amount than the gold currency.

In place of this old and well-established theory, Mr. Strakosch put before the Committee a doctrine that the stability of the exchanges before the war was due to the trade or transactions of the principal countries having—apparently quite fortuitously—"perfectly balanced" (QQ. 38, 165), while since the war it has been "out of balance" temporarily, though it must balance in the long run (Q. 200). No one asked how an account covering exports and imports, and all the transactions included by Mr. Strakosch and the Committee in "invisible exports and imports," could possibly fail to balance for even the shortest period of time. When the visible exports plus the invisible do not equal the visible imports plus the invisible, what does the difference consist of? Mr. Strakosch never explains this, but may be suspected of supposing it to consist of debt not intended to be of long duration; but the contraction of debt has already been set down as one of the items in the invisible imports and exports, and if the whole has not been included the item should be amended. The majority of the Committee, when they talk of "the maintenance of an excess of visible and invisible exports over visible and invisible imports" (*Report*, p. vi) are probably making the difference consist of coin imported, thus partially reverting to the mercantilist nomenclature, in which coin was not included in imports and exports. But the mercantilists excluded bullion as well as coin.

Having thoroughly confused the majority of the Committee with the chimera of a balance-sheet which does not balance,

although the items on each side add up to equal amounts, Mr. Strakosch proceeds to terrify them with two bugbears—the Indian peasant, who will insist on buying gold at an outrageous price, and the United States, which had "lost" in nine months to March, 1920, 450 millions dollars' worth of gold. Instead of congratulating South Africa on still having in the East a tolerably good customer for her principal product, now terribly depreciated in purchasing power owing to the misfortunes of Europe; and instead of congratulating the United States on finding customers for this mass of metal which she took in exchange for goods during the war, which so far had done nothing for her except create disturbance by raising prices, and the export of which was likely to bring her prices down (as indeed it has), Mr. Strakosch argued that the United States would be obliged to restore her war-time embargo on the export of gold, and then, if South Africa was on a gold standard, allowing the export of specie, the all-devouring Indian peasant would soon draw away all the gold coin from her. Of course, if South Africa really were on a gold standard, nothing of the kind would happen, because the sovereigns in South Africa would then be no cheaper than 113 grains of gold produced from the mines, and there could be no reason for the Indian peasant to make a dead set at the South African currency.

Confused by all this, the Committee never seriously considered the real practical issue which should have been put before them —whether it would be best for South Africa to keep her currency level with gold or level with the British paper pound. There are many arguments for both courses, and this is not the place to attempt to decide between them. What the Committee—or at least the great majority of the Committee, since the small Labour element fought manfully for sound doctrine—decided to do was to recommend the continuance of the embargo, the discontinuance of the convertibility of paper into coin, and the creation of a new central bank of issue with power to issue unlimited banknotes against 40 per cent. of gold. These proposals remove the two checks—"leakage" of coin by smuggling and the fear of a removal of the embargo—which restrained the banks in the manufacture of currency. On their face they substitute nothing except the requirement of 40 per cent. gold cover. Now, whatever may be thought of the usefulness of such a requirement when the paper is convertible, it is clear that when the paper is inconvertible and expected to remain so it will only stop the manufacture of paper pounds when their value is so reduced by over-issue that it will

take nearly a hundred of them to buy gold enough to make forty sovereigns.

Until the new bank can be got into working order, the recommendation is that existing banknotes shall be convertible only into gold certificates issued by the Treasury which are themselves inconvertible into the gold which they "certify": the banks may increase their issues as they please, provided that they keep 40 per cent. reserve against the whole and pay 3 per cent. per annum on any excess of issue above that of December, 1919, and their issues will eventually be taken over by the new central bank.

This bank might, of course, determine to raise South Africa's currency to par with gold, and could do so by reducing the swollen paper issue, but a very different state of opinion will have to be created before it is likely that the board of management will even wish to return to the gold standard. It is much more likely only to desire to secure parity with the British pound, and knowledge of monetary theory will have to be considerably improved before it will be likely to know that, in order to maintain even that low standard, it must not yield to what the Finance Secretary naïvely calls "the requirements of business"—as if business would not always "require" as much currency as banks and Governments are induced to create for it!

And though the requirement of 40 per cent. cover plus the tax of 3 per cent. on additions to their issues is a fairly strong brake (especially when the 40 per cent. means more than 40 per cent., because the centum is reckoned in a depreciated currency and the 40 in gold) and may perhaps prevent further increase of the paper currency by the existing banks, it is possible that the question may ultimately be not of maintaining a Bradbury standard, but of climbing up to that low level. For the Committee's Report and the progress of legislation on the lines it laid down were promptly followed by changes in values which have greatly widened the gap between the South African pound and gold, and have even brought it slightly below the Bradbury, though it was 7 per cent. above a few months ago.

It remains to be seen whether sounder views and better policy will be the result of this degradation of the South African currency, and of the fact that, instead of the United States having set a bad example by reimposing her war-time embargo on gold exports, as prophesied by Mr. Strakosch, Argentina is preparing to remove hers, and that the Indian situation has also changed in a way which should help to dissipate the groundless alarms with which he inspired the Committee. Much depends on the

importance which the central bank and the existing banks attach to the sub-section (§ 7, iii) of the new law providing that the suspension of convertibility shall cease on June 30th, 1923. If they really believe that the legislature will not continue it beyond that date, they will take the steps required in order to bring the pound gradually up to par with gold.

EDWIN CANNAN

PROFESSOR CASSEL'S TREATISE

Theoretische Sozialökonomie. Von GUSTAV CASSEL. (Leipzig: Winter. 1919. Pp. 582.)

"A SORT of scientific poem"—in these words the *Méchanique Analytique* of Lagrange was described by one who was a poet as well as a mathematician, William Rowan Hamilton. The words serve to introduce an essay in which Hamilton, by a singularly beautiful and original conception, enlarged the powers of dynamical science.[1] In the view of that soaring genius astronomy and mathematical physics generally require the exercise of a faculty akin to the artistic imagination. There is produced "an imitation, not a copy, of Nature. It is a creation of the mind so framed as to resemble in an immense number of particulars what we know of the external universe."[2] To some men of science this view may appear visionary; too much in the spirit of Plato, too little in the manner of Bacon. There appears, indeed, to be some disagreement among "the first of those who know" as to the *rôle* of the highest generalisations even in natural philosophy. How much more difficult to find must be the path to a science of human action! In this obscurer region we are disposed to follow one who, accredited by the successful treatment of several special economic questions in former writings, now delivers his mature judgment about the science as a whole. Professor Cassel appears to us to have remarkably well defined the province and limits of abstract general reasoning in economics. "We proceed like the astronomers who first determine the motion of a planet as if it were not influenced by the other planets . . . afterwards take into consideration the disturbances caused by the other planets. . . . In order to be able to pursue this method one must be assured that the motion first described represents the essential portion of the phenomenon" (*dass die erste Bewegung auch die wesentliche darstellt*) (93).[3] So Ricardo is not to be condemned

[1] *On a general method in Dynamics,* Transactions of the Royal Society, 1834.
[2] Transactions of the Royal Irish Academy, 1837–8.
[3] The bracketed numerals refer to pages of the work reviewed.

merely because a theory of his does not perfectly correspond with the observed facts. "Every theoretical investigation must begin with certain abstractions" (263). A good instance of appropriate abstraction is afforded by the conception of production as a continuous flow. "New iron ore and new coal are daily and hourly requisitioned from the store-houses (*Fundstätten*) of Nature, while simultaneously crude iron is furnished in a steady stream and converted into steel, and the various products of steel and iron are passing through all the stages which lead up to the finished article" (21). This description is *primâ facie* inappropriate to agriculture. Certainly we do not find in modern Europe, as in the Homeric Phæacia, every fruit in season all the year round, "pear ripening after pear . . . and fig after fig." Yet "the European demand for wheat is (or rather was when this was written, before the war) satisfied by a practically continuous stream of imported wheat throughout the whole year with considerable regularity." Corrections of this conception are to be introduced where required by the facts. But in order to obtain a first general view of essentials "it can hardly be doubted but that the continuous process of production . . . is *the right abstraction*" (22). The italics mark our approbation. But we do not commit ourselves to acceptance of every proposition which has "right abstraction" for predicate. Thus with regard to the alleged unequal pay to women for equal work and the question on which the author pertinently puts his finger, why, then, does not the *entrepreneur* more extensively substitute female for male labour, we are not quite satisfied with his answer. He puts forward as the dominant circumstance the real, or at least believed, inferior efficiency of female work. He will not accept the "risky hypothesis" that in general female labour is underpaid (294). Again, we question whether his conception of the *rôle* of money, or at least what is novel in his conception, deserves all that he claims for it. "By studying prices rather than value" (*eine Preislehre anstatt einer Wertlehre*) "we shall banish completely from economic science the whole of the so-called theory of value. We shall altogether get rid of a great mass of logomachies on which now much useless labour is spent" (41). We shall here diverge from his treatment of money so far at least as to think it permissible to discuss his first two "books," entitled respectively *A General View of Economics* and *The Determination of the Prices of the Factors of Production*, apart from the third and fourth books on *Money* and *Crises* (*Konjuncturbewegungen*) respectively. The work having been already reviewed as a whole in the ECONOMIC JOURNAL (1919), we take leave

to concentrate attention on the parts to which the reviewer pointed as "of special interest for English economists."

This half of the work may indeed be regarded as a whole complete in itself. The relation of its parts to this whole is artistic. The refined pleasure of contemplating the Many in One is afforded by the spectacle of the economic system—the prices of all commodities and all factors of production—deduced from one single simple principle, that which underlies the action of supply and demand. May not the mechanism of industry so presented deserve the character of a "scientific poem" which has been attributed to celestial mechanics? We might at least compare our author to a first-rate astronomer who should compose a treatise at once summary and comprehensive presenting in lucid order and due perspective the main results obtained by his predecessors and by himself. In such a work it is inevitable that those who are conversant with the science should find much which has not the charm of novelty. Now we are treated to a mathematical analysis of market in the manner of Walras, with "technical coefficients" which correspond to the coefficients of production proper to the Lausanne school (110-116). Now we come upon the doctrine of Dr. Marshall that "the farmer will lay out capital and labour on land for which a fixed rent (per unit of land) is payable up to the point at which it is indifferent whether a specified sum of money should be employed to procure the use of more land or more capital and labour" (242). The maturer student would be assisted in finding his way to matter of fresh interest by a fuller table of contents and by a logically constructed index. We may also recommend, with the view to a translation into English, which we hope is in contemplation, the useful device of marginal headings. As for beginners, the matter as well as the form will prove acceptable to them. The half-volume under consideration, with the omission of certain passages which we shall indicate, may be recommended as perhaps the best introduction to what may be called the modern higher economics.

The perfection of form which we admire, the conception of the economic system held together by a single simple principle, like the solar system by gravitation, would seem to us even more admirable if the author had employed a more conventional terminology in his enunciation of that first principle. The continual use of the term "scarcity" (*Knappheit*), where supply-and-demand might have been expected, jars (3, 120, 289, *et passim*). Of course, scarcity is a condition of value-in-exchange. We all know

that air and water, if not scarce, have not that kind of value. Moreover, a sort of scarcity is implied in the condition of economic equilibrium that the yield of any factor at the margin of production should increase at a decreasing rate. But our author has not much use for margins. He is so afraid of their abuse (118). Marginal productivity is not to be adduced as an *explanation* (*Erklärungsgrund*) of price (272). For it is as much an "unknown" as price. But *quis negavit?* At least, what mathematical economist ever denied this relation of margin to price? What competent economist of any school can deny it after the repeated and explicit explanations given by Dr. Marshall that "marginal uses indicate but do not govern value" (Contents, and corresponding passage at p. 410, *Principles*, edn. 5, p. 517, note, *et passim*)? The usefulness of this index, in our judgment, outweighs the danger of its abuse. The fear of making the weak brother to offend should not deter us from using the principle which Professor Pigou has laid down as the corner-stone of *Wealth and Welfare*. Professor Cassel's scruples and our criticisms apply equally to marginal utility (118). There is here in his view the additional objection that we are overstepping the boundary between economic science and psychology (67). But we do not accept his ruling as to the limits of the subjective in economics (41). Taxation is an integral part of economics; and psychology enters largely into modern taxation. We are not prepared to rule out all talk about justice as the "expression of confused hyperbolical conceptions which have no place in a scientific exposition" (150).

Some further criticisms of Professor Cassel's doctrines will transpire in the course of the following remarks respecting criticisms which he has passed on several eminent economists. We cannot defend Ricardo against the charge of "dualismus" (263). We agree that the existence of rent-free land at the margin of cultivation is not essential to the theory of ground rent (248). We also agree as to the distortion of Ricardo's doctrine by Marx; and as to "the ridiculously exaggerated importance which has been attached to this Socialist theory of value," not only by the apostles of Socialism, but by its opponents (261). A science which makes concessions to scholastic like that of Marx does not know what is due to itself (157). Two English Socialists who have not bowed the knee to Marx, "*das Ehepaar Webb*," are treated more respectfully (277). But their ideal theory can hardly be fulfilled perfectly in real life (278). Against Socialists in general it is argued with force that interest and wages will per-

sist in a Socialist *régime* (217, 316). The writer appears to think that price determined by the play of demand and supply affords the only satisfactory principle for the distribution of capital and labour (61, 185, 109). Consistently he rules out rationing and maximum prices as not applicable in peace time (Appendix, 561). His ideal seems to be that which Professor Carver lately described [1] as one of four possible labour programmes, namely, "balancing up," securing less inequality between marginal utilities, *e.g.*, of labour and capital. We fear that the many will not be persuaded to confine themselves to this method. They may not accept the economist's opinion that permanently favourable results can only be attained by political economy when it works in harmony with the principles of supply and demand (*tauschwirtschaftlichen Principien*) (151). The working of those principles, however "normal," may not seem to them "desirable" (*wünschenwert*) (105). In this connection (221) and generally the subtle criticisms concerning capital and interest deserve attention. Some important remarks upon Jevons' and Böhm-Bawerk's theories are repeated from the author's earlier work on the *Nature and Necessity of Interest* (160). We cannot dispute the final verdict on Böhm-Bawerk. "He never was able to adopt in its entirety the modern scientific conception of price-determination as one and the same process which simultaneously determines *all* prices, both those of the finished goods and those of the factors of production" (162).

But we protest against the injustice of imputing a similar defect to the *doyen* of English economists. Why, most of us have learnt the "modern scientific conception" from Professor Marshall. There is no other original authority, except Walras. We read, therefore, with amazement that "the whole of Marshall's system is an attempt to evade (*umgehen*) the principle of scarcity" (*Knappheit*), to eliminate (*auszuschalten*) scarcity "as a determining moment of price-formation" (139). Which signifies, presumably, that the English author does not recognise the essential unity of the process that determines all prices. Thus, instead of making the price of a factor-of-production dependent on *Knappheit* only, "in Marshall's conception 'costs' ('real costs') represent a personal service, an effort, a sacrifice" (*eine persönliche Leistung, eine Anstrengung, eine Aufopferung*) (75). It may be noticed, however, that even Professor Cassel admits a certain differentiation of the generic conception in the case of the offer of factors-of-production not absolutely limited in quan-

[1] Referred to ECONOMIC JOURNAL, vol. xxix., p. 257.

tity; the scarcity appears in the sluggishness (*Trägheit*) with which the increase of the factor follows a rise of price (134). Would he be satisfied with Dr. Marshall's explanation that the "discommodity of labour may arise" "from its occupying time that is wanted for pastime, or for social or intellectual pursuits" (*Principles*, ed. 3, p. 216)? Or is the real cost considered too psychological? That is certainly part of the objection to "consumer's surplus" (70). We have already replied to this objection. We must pass over others which seem to turn largely on the definition of terms. We go on to the culminating charge (243), that Marshall follows Ricardo in distinguishing rent from the price of other factors of production as not forming an element in the cost of production or the price of a product. Perhaps the critic has not made sufficient allowance for the English writer's unwillingness to break with the phraseology of his classical predecessors. Professor Cassel is the last man to appreciate this reverence for the past; he who tells us that "in the course of his economic studies he soon became convinced that the whole of the so-called theory of value, with its endless logomachies and its unfruitful scholastic, should be thrown into the waste-paper basket of theoretical economics."[1] (Preface, v., *cf.* 41). The Swedish sage would no doubt refuse to phrases the permanence which Burke in eulogy of the English character claims even for prejudices. "Instead of casting away all our old prejudices," says Burke, "we (English) cherish them to a very considerable degree. . . . Many of our men of speculation, instead of exploding general prejudices, employ their sagacity to discover the latent wisdom which prevails in them."[2] We could wish that Professor Cassel had employed his sagacity in discovering the wisdom which is latent in the practice of the classical economists and patent in Dr. Marshall's repeated explanations respecting the peculiarities of land as compared with other agents of production. But we are dispensed from the disagreeable task of refuting objections founded on misinterpretation by recalling that answers have already been given in the ECONOMIC JOURNAL to substantially identical objections made a quarter of a century ago by writers of great intelligence, but somewhat deficient in intellectual sympathy. We may refer in particular to the review of Wicksteed's *Laws of Distribution*, 1894. In the judgment of the reviewer, Mr. Flux, "to show that the payment for land may be expressed in the form of the marginal productivity of land does

[1] Zu der auszumusternden Ballast der theoretischen Ökonomie gehört.
[2] *Reflections on the French Revolution.*

not destroy the value of the conception of it as a surplus." There is an "essential feature which distinguishes the treatment of land and some other agents." In the ECONOMIC JOURNAL for 1891 the reviewer of Professor Marshall's second edition did not, like our author, find a "want of clearness in Marshall's conception of mutual dependence."[1] Rather, it is recalled that as far back as the year 1872 the principle had been clearly enounced in these words—quite as clear as any which Professor Cassel employs half a century later: "Just as the motion of every body in the solar system affects and is affected by the motion of every other, so it is with the elements of the problem of political economy." The reviewer of the third edition of the *Principles* in the JOURNAL of 1895 quotes at length passages embodying the truth which Professor Cassel supposes to be ignored. "The question whether he (the cultivator) has carried his cultivation of a particular piece of land as far as he possibly can, and whether he should try to force more from it or to take on another piece of land, is of the same kind as the question whether he should buy a new plough or try to get a little more work out of his present stock of ploughs" (*Principles*, Book II., Chap. ii., § 5, ed. 3). After this explicit explanation it becomes a mere question of words, adds the reviewer, whether we should retain the old formula: "Rent does not enter into cost of production." The critics who complain of Dr. Marshall's differential treatment of land forget that he, by his doctrine of the "margin of building" and that of cultivation, has done more than any other economist to exhibit that truth on which they insist. Their criticisms attest the correctness of their own views rather than their ability to appreciate the views of others.[2]

F. Y. EDGEWORTH

MR. COLE'S SOCIAL THEORIES

Chaos and Order in Industry. By G. D. H. COLE. (London: Methuen and Co. 1920. Pp. viii+292.)

MR. COLE has given us realistic studies of Trade Union problems, and idealised pictures of a future commonwealth: in his latest book (we write in July) he promises to relate the actual with the ideal, and to develop in separate detail, for a number

[1] "Die Unklarheit der Marshallschen Idee der gegenseitigen Abhängigkeit tritt hier hervor" (245).

[2] Some of these expressions are borrowed from the present writer's article on the "Theory of Distribution," in the *Quarterly Journal of Economics* for 1904, where references to anticipations of Prof. Cassel's objections may be found.

of leading industries, what he regards as immediately practicable steps towards the establishment of democratic control. This promise comes as a great refreshment to the *bourgeois* reader, to whom the mutual polemics of Coleite and Hobsonite are apt to bear a faint flavour of Big and Little Endianism, and who finds the record of the competitive body-snatching of Craft and Industrial Unions more palpable indeed, but even less exhilarating. On this occasion Mr. Cole has made a gallant attempt to pitch his tent somewhere between the Trade Union Lodge and Cloud-cuckoo-land; but now and again a sand-storm blows it away.

The real starting-point of his argument (though not fully elaborated till late in the book) is that the main current justification of Capitalism—that it *works*—is being progressively undermined by the apathy and discontent of large sections of Labour, and the consequent insecurity as to whether Capitalism can "deliver the goods." Mr. Cole reminds us that this is admitted even, and indeed especially, by those who most deplore it; and he is fully justified in urging that this is of itself a strong argument for a change of system. He is justified too in the effective use he makes of various specific excesses of Capitalism, such as the deliberate restriction of output by certain combines, and the celebrated cotton-mill transactions of last year.

There are other things too in this book which will win the approval of that elusive person, the impartial outsider. Such are Mr. Cole's admirable distinctions between the powers of *negative* control or obstruction at present wielded by the great Trade Unions, and those powers of *positive* control or government to which he would have them aspire; his scant sympathy for fancy Labour currencies; and above all his discussion of the mechanism of appointment under democratic control.

Of the chapters on specific industries, that dealing with the railways is much the most effective. It is early to judge, but it seems doubtful whether the fragments of "private enterprise" and "financial incentive" left either by the American Transportation Act or by our own Government scheme will prove to have been worth preserving, and will not have to make way for some such plans as those outlined by Mr. Plumb and Mr. Cole. It is in connection with the railways, moreover, that Mr. Cole develops some pregnant reflections on the machinery of industrial government which might go far to disarm the most conservative critic. The democratic election of "commanders," he reminds us, does not necessarily mean election by the particular group of work-people to be commanded; still less does it involve the right of

summary dismissal being in the hands of that group. "Democracy cannot do without leadership, and leadership without any security would be impossible." Further, "no successful enterprise is ever really managed by a Committee, and none ever will be; but the Committee is . . . necessary for the giving of general directions and for the criticism of methods and results."

About mining Mr. Cole has not much that is fresh to say. His interpretation of the Miners' Federation scheme of Nationalisation is curious. It is that the non-Federation members of the Mining Council are to be entirely representatives of the industry —experts, technicians, etc.; and that large and undefined powers over prices, wages and capital development are to remain *outside* the Mining Council with some organ of the State. If this is a correct gloss, it is high time that the Miners' scheme was drafted more explicitly: for Mr. Hodges himself, who appears in his book to regard the "other half" of the Council as representing the consumers and the nation, would seem to be in danger of mortal heresy.

As regards engineering, Mr. Cole pins his faith to the "collective contract." The members of the workshop are to contract collectively with the employer for specific jobs, making their own arrangements for the division of pay, the exercise of discipline, and even the hours of work. There is clearly a lot to be said for this idea of "encroaching control," which involves the complete taking over of certain limited functions, and to which an instructive political parallel might be drawn from the "dyarchy" of the Montagu-Chelmsford reforms. But in view of the admitted disharmonies between skilled and "less skilled" in the engineering industry, is caution superfluous lest the system should degenerate into something not far removed from that "semi-capitalism" to whose evil prevalence in nineteenth-century industry Mr. Fay's recent researches have called attention?

As to the building industry, Mr. Cole is justified in acclaiming the important experiments of the new Building Guilds, and in drawing attention to the yet more far-reaching (though still, we think, abortive?) proposals of the Foster Report. *Quaa bene evertant!* But is it perhaps a little artless to suggest that the considerable financial difficulties should be met "by a more reasonable attitude in respect both of rents and of financial facilities by the Ministry of Health"? After all, poor old "private enterprise" might plausibly urge that its chief trouble has always been that people want to have houses without paying for them. And as for luxury building (with which Mr. Cole classes factory

building as "the wrong type of work"), is it the capitalists who fill the cinemas? How many "financiers" assisted at the triumphal disembarkation of Douglas and Mary?

On shop-keeping and co-operation Mr. Cole has some sensible things to say. But even cordial well-wishers of the co-operative movement may be rather staggered to find that the successful private trader is to be speedily eliminated, not by its superior efficiency in supplying public wants, but by the simple process of transferring his business to it by law! And a little later it appears that this is to be the fate of the flour-milling, soap, boot-making and tailoring trades as well. Alas! we are in Cloud-cuckoo-land after all.

Mr. Cole's work is so full of knowledge and power that it is of interest to inquire rather closely why it does not carry instant and overwhelming conviction. Eloquent, industrious, imaginative and sincere—how is it that he still leaves us unregenerate? Perhaps the answer lies in a certain *naïveté* of mind, at once disarming and irritating, which glimmers through his most elaborate constructions. In the first place, he is curiously sanguine about the simplicity of the problem of providing for a growing population with a rising standard of life, and curiously oblivious of the real means by which, after a fashion, it has hitherto been done. Mr. Cole cannot be accused of undervaluing brain-work; no one has done more to explain to the manual workers what good and important fellows the "salariat"—the technicians and supervisors, the tacticians of industry—really are. But industrial strategy, the initiation of policy, imaginative prevision—all that is connoted by Dr. Marshall's phrase, "constructive speculation"—where do these come in? Mr. Cole seems uneasily aware that the more Olympian type of *entrepreneur* or business man or whatever we like to call him, is not as yet a mere functionless excrescence, but that his passing will leave a gap to be filled. Yet is any real provision made for filling it? That seems to be the fatal limitation of Mr. Cole's policy of dyarchy or "encroaching control." To revert to the Indian analogy, would the most complete control over local sanitation fit the Indian people for the control of foreign relations and imperial finance, unless supplemented by some kind of educative association in the discharge of those exalted functions themselves? And will the most complete control of workshop conditions fit the Trade Union for control of the broader issues of business policy unless it sits at the feet of those who know their job, profit-mongers though they be?

And this brings us to a second manifestation of Mr. Cole's ingenuousness—a certain prudishness, born perhaps of defective analysis, on the subject of Profit. The old slogan that "Production should be for use and not for profit" conceals in rather cloudy language a valuable element of criticism and exhortation; but when the antithesis is pressed, as Mr. Cole presses it, to the bitter end, it is surely found to contain also two quite misleading implications. First, that the production of relatively unnecessary or even pernicious things is bound up with a particular system of remuneration, whereas in fact it has its roots partly in the unfortunate human propensity to waste money, partly in the inequality of incomes: an inequality which would presumably be reduced, but apparently not abolished, by Mr. Cole. Secondly, that the sphere of fluctuating profit is co-extensive with the sphere of personal greed—surely an unduly simple reading of the riddle of human motive. Mr. Cole himself makes a curious exception in the case of shopkeeping: the *small* shopkeeper, it appears, is not a "capitalist"; in this calling, for no very obvious reason, success and not the method of remuneration becomes the hall-mark of infamy. And will not the price of those "collective contracts" in the engineering trade depend upon demand and conjuncture, and partake of the essence, if not of the name, of profits? Yet it would be absurd, of course, to suppose that a shop-committee could be greedy.

In any case, is it any use to be so strait-laced? Over the great field of not immediately nationalisable industry, is there any other road to the higher industrial functions but Partnership? Mr. Cole condemns "Whitleyism" in unmeasured terms; and if it is to be nothing but a new channel for bargaining and the exercise of negative control—if it really contains no germs of partnership in government—he is right to treat it as of relatively little account. But the shrill fury of his attack seems to argue not so much a conviction that Whitleyism is incapable of developing into constructive partnership, as a fear lest by mischance, if Mr. Cole's back is turned, it should do this very thing. "Joint machinery, whatever its character, has nothing to do with the working-class demand for control." "Joint machinery is purely an instrument for negotiating with the employer, and is in no sense a way by which the workers can enter upon the control of industry." In such tones speak the magic-men of all ages, uneasy at the dawn of common sense.

Here is a suggestion—impertinent perhaps, but made in genuine admiration of Mr. Cole's great gifts of mind and spirit.

That for, say, two of the ten years (is it?) that capitalism has yet to run, he should abstain from the writing of books. That during this time he should seriously try to discover why people not devoid of intelligence or faith still detect signs of seaworthiness in the old ship Private Enterprise, and still hold that a voyage in her as mate would be no unworthy schooling for the future skipper of the new ship Democratic Control. Then let Mr. Cole break silence, and give us, if he can, the book for which we are waiting, the real itinerary to Cloud-cuckoo-land, the book which shall be for the new age what the *Wealth of Nations* was for the bad old times when production was for profit and not for use.

D. H. ROBERTSON

NOTES AND MEMORANDA

AN EXCESS INCOME TAX

ONE of the most obvious and pressing necessities of the present fiscal situation is the substitution for the existing Excess Profits Duty of some form of taxation which will be more equitable in its incidence and have a less harmful effect on enterprise and industry. The project of a "Capital Levy" is now outside the scope of practical politics, and a special tax on business profits in its present form of a Corporation Profits Tax is not likely of itself to maintain the income of the Exchequer at a sufficient level when the Excess Profits Duty reaches the later stages of its contemplated curtailment. It seems clear that for that purpose additional revenue will have to be gathered from several sources, inasmuch as no single substitute will make good the loss incurred by the repeal of so fertile a tax as the Excess Profits Duty has proved to be. New taxes are, as a rule, particularly expensive to collect, and therefore it is desirable that existing taxes should first be examined in the hope of discovering some means of adaptation or improvement which, without undue hardship, will provide additional revenue. A mere increase in the rates of the Income Tax on the existing scheme is open to the objections urged by Dr. Stamp in his discussion, in THE ECONOMIC JOURNAL for December, 1919, of the special taxation of business profits; but it is suggested that such an increase by no means exhausts the possibilities of the case. Under the Income Tax at its present state of development equity is sought for in three ways—by the exemption of the minimum of subsistence of the taxpayer and his dependents, by relieving "earned" as distinct from "investment" income, and by graduating the effective rate of tax. On the other hand, the Excess Profits Duty, in general, ignores these factors, but levies a special toll on increases in business profits. It is proposed to discuss here the desirability and practicability of extending the

scheme of the existing Income Tax so as to apply to that permanent tax the economic conceptions which are the vital principles of the admittedly temporary Excess Profits Duty.

It is assumed that the conception of sacrifice is accepted as the proper foundation on which the standard of fiscal equity—whether "equality of sacrifice" or "minimum sacrifice"—is to be reared, but it is desirable here to refer to one of the somewhat neglected implications of this conception of sacrifice. The conception has not been pressed—and there appears to be no sound reason why it should be—to the point at which an attempt would be made to take account of differences in individual temperament as affecting the degree of sacrifice. It would be, for instance, clearly repugnant to ordinary standards of justice to equate by some "relief" the miser's sacrifice to that of the spendthrift. Some idea of a normal temperament is required, and the equality or minimum should be sought for after considering those objective circumstances which, in such a case, would intensify or reduce the feeling of sacrifice. Hitherto, with the very notable exception of the Excess Profits Duty, too little attention has been paid to the fact that among the factors to be considered is the variation upwards or downwards in the *quantum* of the taxable mass. In society, as it is constituted to-day, there is a certain approach to fixity as regards individual standards of expenditure; each person has his own habits of life, his own standard of saving, his own private charges for charity or the assistance of dependents—in a word, his own habitual commitment, the amount of which, though rising and falling with the increase or decrease in his income, moves more slowly and within a narrower range. The degree of acuteness of the sacrifice is largely determined by the extent to which the payment of the tax impinges upon the habitual commitment, and conversely where the payment has left that portion of the total income untouched, as, for example, where an increase in income coincides with an increase in the statutory rates of tax, the "sacrifice" is greatly reduced. Consider, for instance, three men each having this year an income of £3,000, whose incomes in the past have been £2,000, £3,000 and £4,000 respectively; is equality of sacrifice obtained by requiring the same payment of Income Tax from each? Clearly not. That doctrine can be satisfied only by requiring more from the person whose income has risen, and less from one whose income has fallen, than from the third whose income is stationary and whose sacrifice is normal. The point appears to have received little consideration from the theoretic standpoint, but

its conscious or unconscious application is discernible in fiscal legislation. For instance, from 1842 to 1907 Income Tax relief was given to falling business profits,[1] and though the provisions were repealed in 1907 they were re-enacted and greatly extended during the war; it has also been suggested[2] that the application of the consanguinity basis to the Death Duties derives at least some portion of its justification from the fact that the more remote the relationship the more unexpected the benefit, and therefore the greater the faculty or the less the sacrifice; and the special taxation of "windfalls," which was one of the most cogent arguments in favour of the Excess Profits Duty, has one of its roots in the same principle. If equality of sacrifice is to be achieved, the dynamic as well as the static condition of the income must be considered. An upward variation in the taxable mass implies a sub-normal, and a downward variation implies a super-normal, sacrifice in the payment of any given amount of tax. So long as the rates of Income Tax were low, this variation from normal sacrifice was small, but as the rates of tax have risen so the payment has tended to press more and more on the habitual commitment, and so long as they remain at or near their present levels the question of variation must remain one of considerable importance. This leads to the conclusion that increases in incomes not anticipated by commitment are particularly able to bear taxation, and that a reduction in, or repeal of, the Excess Profits Duty should be coupled with a progressive attempt to levy a special Income Tax in such cases.

Before considering the most practicable mode of proceeding, it may perhaps be well to refer to one or two other aspects of the question.

(1) One advantage of such a tax would be that it would be laid on the individual and not on the business. As Dr. Stamp has pointed out, "ability," as usually understood, connotes individual ability, and the Excess Profits Duty, by taxing a company without reference to the circumstances of the shareholders, may work counter to the generally accepted ideas of fairness. As he says in his article of 1919, "every individual in an excess-making company may for other reasons have a reduced total income." There are theoretical grounds for the special taxation of business profits as such, but it may be doubted whether they could properly sustain a heavier strain than the Corporation Profits Tax which is to come into operation for 1920.

[1] Income Tax Act 1842, Section 133.
[2] *Cf.* Soward and Willans, *The Taxation of Capital*, 1919, p. 110.

(2) It would enable "income" to be dealt with as a whole, and thus avoid the difficulties and friction engendered by allowances for the operation of increased capital, for the element of earnings of management of paid employees receiving abnormal remuneration, and for the exemption of certain classes of profits, such as those of employees, farmers and professional men. A large proportion of the litigation and the administrative problems of the Excess Profits Duty centred round these and similar questions. An Excess Income Tax would not only be more consistent with the accepted principles of equity, it would also be more easily put into simple statutory form, and much less likely to cause litigation and heart-burning among the payers, than a tax on "profits," whether inclusive of all its elements, or whether exclusive of interest or earnings of management or both. At the same time, seeing that "profits" form by far the largest class of fluctuating income, the tax would be derived from very much the same source as the Excess Profits Duty.

(3) Admittedly, it would involve a serious breach of the principle of taxation at the source. The question of evasion will be referred to again in connection with a suggested scheme for practicable working, but it will be found that the chief difficulty is not that of determining the *quantum* of taxable profit, rather is it the less serious difficulty that now confronts the administration in the assessment of Super Tax, namely, the calculation of the individual's share of the total ascertained business profit.

(4) Such a tax would have a very healthy effect on the general body of taxpayers. The *nouveau riche* is usually the worst offender in the embitterment of the wage-earning classes by lavish and often unwise expenditure. A tax which, though equitable and profitable to the Exchequer, kept within reasonable bounds the open dissipation of the uncommitted margin of a rising income, should have valuable results in reducing the discontent and envy on the part of others which such expenditure inevitably provokes.

A Practical Scheme.

An Excess Income Tax would not be collected except at some expense, but it is submitted that the ratio of cost of collection would compare favourably with that of existing direct taxes and be far below that of any other feasible innovation. It is unnecessary here to enter into questions of detail, but it is proposed

to indicate the nature of the suggested scheme and to add some brief discussion of its general principles:

(1) All incomes below the limit of exemption from Super Tax would be exempt from Excess Income Tax.

(2) Excess Income Tax would be levied on the excess of the total income of the individual over (*a*) his average income for the previous three years, or (*b*) to £2,000, whichever be the greater.

(3) In the event of a deficiency, or negative excess, repayment would be made at two-thirds the rate chargeable; a three-years' limit would apply to the carrying forward of deficiencies or the bringing of excesses into the account for repayment purposes.

(4) Where a source of income was transferred by gift or through death of the grantor, the income for the three previous years should be transferred from the average standard of the grantor to the grantee.

A cardinal virtue of such a scheme is that it would require —subject to a possible exception to be referred to—no additional declaration of income from the taxpayer. At present every person receiving an income of £2,000 and upwards is liable to declare his total income for the purpose of assessment to Super Tax, and the declarations so made could be utilised for the supplementary Excess Income Tax. The possible exception would arise in the unlikely event of the retention of the present system of assessing business and professional profits to the ordinary Income Tax on the basis of the three-years' average, in spite of the recommendation of the Royal Commission on the Income Tax of the substitution for that basis of the profits of the preceding year. At present the declaration for Super Tax purpose for, say, the financial year 1921–22 is, so far as such profits are concerned, on the basis of the average profits of the three years 1917–18, 1918–19 and 1919–20, assuming that the recommendation in question receives legislative force, the declaration would be on the basis of the profits of 1919–20, and the Excess Income Tax for that year could be assessed simultaneously with the Super Tax liability for 1921–22. The Royal Commission were "rather reluctantly driven to abandon any intention of recommending the year of assessment as the basis for all purposes," and expressed the hope that "at some future time . . . Income Tax may yet be charged on the income of the actual year." It is obvious that such a change would facilitate still

further the assessment of an Excess Income Tax as an integral part of the total direct taxation of a year's income, by eliminating the undesirable length of time between the year when the excess income accrued and the date when the assessment would normally be made. It will be observed that the standard rises and falls, but more slowly and within a narrower margin than the actual income. It can therefore be claimed that the standard would have some substantial claim to play the part of the habitual commitment in the determination of the amount of income fairly chargeable at a special rate.

The mobility of the standard is obviously essential in a permanent tax, and it is also required by the fundamental conception of the effect of "variation" on sacrifice; in addition, it would be of prime importance in the successful administration of the tax. The question of evasion of Income Tax and Excess Profits Duty is a very disturbing one; the war sharpened the edge of the public conscience, while at the same time it necessitated the raising of rates of duty to levels which greatly increased the temptation to evasion; it is to be feared that the cessation of hostilities has dulled the edge of conscience, while the temptation remains nearly as great as ever. Fortunately for the administration of taxes on profits, the increased complexity of modern business and the generally recognised principle that all persons interested in a business, whether as owners, partners, employees on commission or shareholders, should be protected by verification of the books of account by independent audit, have greatly fostered the art of accountancy both in the efficiency of its methods and in the flexibility with which it adapts itself to the circumstances of different industries. To this progress and to firm and wise administration on the part of the Board of Inland Revenue is largely due such success in the restriction of evasion as has been attained. But the importance of this question, both from the material point of view of the yield of the Income Tax and of the effect on the general community, can hardly be overrated, and any reconstruction or adaptation of a tax on income must therefore be judged to a large extent on its liability to evasion. A moving standard has this outstanding merit, that the person who contrives a successful evasion automatically depresses his own standard for the future and may run a risk of incurring heavy penalties for little or no ultimate gain. For this reason no "loading" of the standard by the choice of years could be admitted, and, indeed, there seems to be no valid reason why it should be called for, except that it would probably be sug-

gested on the quite misleading analogy of the Excess Profits Duty.

The exemption limit, it is suggested, should be the same as for the Super Tax, partly because that would facilitate the practical working of the scheme as an adjunct to an existing tax, and partly because that limit seems to provide a reasonable line of demarcation between the field where a moderate rate of duty would provide a substantial revenue and that where the probable yield would entail too high a ratio of trouble and expense. Further, as regards moderate incomes, the "habitual commitment" seems to respond more quickly and effectively to any increase in income.

The question of the negative excess or "deficiency" raises this difficulty, that, if repayment is to be freely permitted, the ultimate effect might reduce the total revenue to small proportions. In general, the income of an individual does increase up to the point of retirement, but there may then ensue a more or less prolonged period when the income is reduced, and if repayment is made without check or limit in respect of the deficiencies so arising, the tax becomes in some sense a *pension fund*. The retrenchment of expenditure when income is falling is, in general, a prime duty, and in the case of retirement is customary and frequently easy—old age often finds its chief pleasure in its earlier comforts rather than in its earlier luxuries. It is therefore suggested that repayment should be subject to two restrictions—first, that the rate should be less than the corresponding rate for payment; and, second, that no computation for assessment or repayment should take into account excesses or deficiencies applicable to any period prior to the three years immediately preceding the year in question. One result of this would be that the yield of the tax would be particularly sensitive to, and sympathetic with, trade fluctuation. It may be objected that already too large a portion of the revenue is sympathetic, and that it would be unwise to adopt any fiscal scheme which would increase the risk of a Budget deficit whenever general trade conditions became adverse. But industry and commerce represent the only sources from which for some time to come the heavy demands of the Exchequer can be met, and therefore the fact has to be faced that revenue is, and must remain for a long period, sympathetic to trade conditions. In this connection it may be suggested—though the point is not, perhaps, closely germane to the present topic—that the time has come for a breach with the established practice of forecasting

a definite revenue, and applying a surplus to reduction of debt, if it is not—as it probably would be—"raided" for some other purpose; the wiser and more business-like course is surely to frame the Budget for a definite amount of debt reduction and carry forward to the next year any surplus or deficit on the National Accounts. If this were done, the objection to taxes sensitive to trade fluctuation would be greatly reduced. Another point in the same connection it that the restriction of the allowance for deficiencies would penalise fluctuating profits which hitherto have received lenient treatment under the Income Tax Acts, special relief being given to falling profits, with no converse accentuation of tax in the case of rising profits. This is admittedly a real difficulty, but two considerations may be advanced tending to justify a certain amount of stress in the taxation of fluctuating profits. In the first place, such profits usually possess something of the "windfall" nature; the "windfall" has two characteristics from the fiscal standpoint—it is not covered by committed expenditure and it has an element of luck; the latter feature may justify some special rigour in the treatment of the former. In the second place, an income subject to super-normal fluctuation does, in general, imply a sub-normal habitual commitment; the exceptions are many and obvious, the nature of the business may attract to itself or cultivate the reckless temperament, but, given ordinary prudence and self-restraint, a man whose profits are subject to violent fluctuation does, in fact, usually leave unexpended a larger margin of his income than another receiving a fixed, or less fluctuating, income of the same average amount. At the same time, few would be inclined to envy a Chancellor of the Exchequer called upon to defend the reduced rate of repayment on these somewhat abstract grounds, and it would clearly be a difficult matter to carry the point politically. It is suggested, however, that the scheme outlined above is not without some merits, even if this point were waived and payment and repayment made at the same rates. There is, and presumably will continue to be, a large class of men who, during the course of their business careers, build up considerable fortunes out of incomes increasing from year to year; in such cases the advancing income implies a sub-normal sacrifice which might reasonably be equated by a supplementary Income Tax in some such form as that indicated here.

R. W. GREEN

THE NEW SOUTH WALES SCHEME FOR THE GRADING OF WAGES ACCORDING TO FAMILY NEEDS

AT a time when questions of wages—the principles on which they should be regulated and the scale which different industries and professions can afford to pay—are occupying a larger share of public attention than ever before, it is curious that one aspect of the subject is almost invariably ignored. In such discussions it has become customary to take it for granted that in the case of men-workers the minimum scale adopted shall be at least sufficient to cover the primary cost of maintaining a family—the mean family being usually reckoned as five persons. For example, the Report of the Dockers' Court of Inquiry states that this principle and this type of family were accepted without dispute by employers and men, and it was further assumed that the standard aimed at should include not only bare necessaries, but "the comforts and decencies which are promotive of better habits." The Report alludes casually to the facts that not all men have families and that all families are not of the same size, and says, "if the bachelor case could have been separately treated, probably no one would have seen any objection in principle to doing so." But it dismisses the idea of differentiating between married and single men on the ground that it would defeat its own ends, since "the cheaper labour would tend to have the better chance of the job." Mr. Rowntree in his *Needs of Human Labour* makes an equally casual allusion to the same possibility and dismisses it for the same reason.

This offhand treatment of the subject is strange when we remember that, so far as can be estimated from the available figures, the proportion of men who have dependent children—reckoning the period of dependency as fifteen to sixteen years, cannot well exceed 50 per cent. Of these, many, of course, have less and many more than three children. It follows that a wage system based on the needs of the five-member family involves a stinting of the large families and a surplus paid to more than half the wage-earners concerned. Assuming, therefore, that there is a limit, whatever the limit may be, to the proportion of the product of each industry and of national income as a whole that can conceivably be spent on wages, it is plain that the supposed necessity of spending so large a share of it on the childless involves a very great lowering of the possible achievable standard of family life.

From this point of view, the scheme proposed a year ago, by the late Government of New South Wales, for (in effect) grading wages according to family needs, deserves more attention than it has received in this country. The circumstances which led to the proposal were as follows: Under recent legislation, the New South Wales Board of Trade is required to declare annually what should be the minimum wage for men and women workers on the basis of the current cost of living. The State Arbitration Court has then to fix the wages for each industry under its jurisdiction on the basis of this declaration. The rate first fixed for males was £3, calculated on the needs of the five-member family. The following year it rose to £3 17*s*., involving an additional cost of nearly twelve millions. It was reckoned that this would lead to a rise of 20 per cent. in the cost of living, presaging another rise in wages the following year. Finding themselves faced with an interminable "race between wages and prices," and threatened in addition with a paralysis of industry and growth of unemployment, the Government set themselves to devise a method of economising, by grading wages according to the family responsibilities of the worker, without giving the employer an inducement to prefer single men. The result of their reflections is embodied in the Maintenance of Children Bill, 1919, which passed the Legislative Assembly, but was rejected by the Legislative Council, so is not yet law. The Bill begins by declaring that henceforth the minimum wage for male employees shall be based on the needs of a man and wife. The wages of women employees are not alluded to, but presumably are regulated, as before, on the basis of individual subsistence. The Bill then proceeds to make provision for the needs of the children as follows: The Board of Trade is required to determine annually the cost of a child's maintenance and to ascertain the number of children of employed persons (excluding domestic servants and agricultural workers), children of male and female employees being reckoned separately, and the employees divided into twelve wage groups. The sums necessary to maintain the children of male employees and also of female employees having been thus ascertained, every employer is required to pay his share of both sums, calculated according to the number of his employees, married or single, male or female, into a Central State Fund called the Maintenance of Children Fund. This is shared out among the employees according to the number of their children, the payments being made monthly, not to the man himself, but to the mother, or, if she is dead, to the acting female guardian of the children. The

payment for a single child is at a higher rate than that for subsequent children. When the wage of the employee is above five shillings in excess of the legal minimum wage, the payment on behalf of his children is reduced by one-twelfth for every five shillings, or part of it, by which his wage exceeds the minimum. No payment is made in respect of the children of an employee whose income exceeds £8 a week or £400 per annum. No payment is made while the employee is on strike.

The Government Report on the financial provisions of the Bill estimate that the average number of children per man employee of eighteen years and upwards is one, and that the effect of the Bill would be to reduce the extra cost in wages of nearly twelve millions, entailed by the previously proposed flat rate increase of 17*s*. per week per male employee, to an extra cost of six and a half millions, a saving of nearly 50 per cent.

Information has been received—but for its validity I am unable to vouch—that the new Government of New South Wales has announced its intention of reintroducing this Bill, or one on similar lines. It is easy, however, to see that it contains provisions that are not likely to commend it in its original form to a Labour Government. Apart from these, it is manifest that the train of thought on which the Bill is based should in logic have been carried a little further. By making no distinction between the minimum wage of the bachelor and the married man without children, it appears to assume, as is probably the case, that the cost of living of a single man in lodgings is not markedly less than that of the married man who obtains in his wife an unpaid housekeeper. But is this not also true of the self-supporting spinster? If the Bill had established the same legal minimum for men and women workers, it would have swept away the obstacle which at present prevents the full development of the productive capacities of women workers, by making it possible for them to compete in the labour market with men on terms that are at once free and fair. Another defect of the scheme is that, like our present system, it makes the cost of rearing future generations—a matter which surely concerns the whole community—a burden on those particular industries which employ chiefly male labour, while those industries employing principally women and young persons and those in which labour of any kind is a small part of the cost of production, escape bearing their fair share. Thus the cost of production of textile goods, tobacco, and confectionery is lightened at the expense of great staple industries such as transport, mining, and agriculture.

Considerations such as these point to a general scheme by which the primary cost of the maintenance of children should be separated altogether from the question of wages and made a general charge on the community. Perhaps, however, it is the merit of the New South Wales scheme that it avoids so complete a break with tradition as this would involve, and brings a reform, which only a few theorists have hitherto dared to suggest, into the sphere of practical politics.

ELEANOR F. RATHBONE

NOTES ON THE BRITISH ASSOCIATION MEETING AT CARDIFF, AUGUST, 1920

Section F (Economic Science and Statistics)

President: J. H. CLAPHAM, C.B.E., Litt.D.

THE muster of economists of standing was very poor, poorer even than last year at Bournemouth. There were very few representatives from the older universities, or, indeed, from any of the universities (Nottingham and Newcastle being honourable exceptions). There was no one from the Board of Trade or other Government Departments concerned with economic problems. This abstention is remarkable, in view of the large attendance of senior scientists in all the other sections and the fact that there is no other annual gathering, so far as we are aware, of British economists as a body. It is also highly regrettable. Last year at Bournemouth some half-dozen leading employers and financiers read papers or contributed to the discussions. This year some admirable papers were read by junior economists, who would have been the first to welcome criticism and further conversations with their seniors. As an industrial centre Cardiff was without rival. Each afternoon the Section, either with other sections or separately, visited industrial establishments—docks, tinplate works, iron and steel works, and that strange, densely-populated hinterland of narrow valleys, packed with coal trucks, railway lines, long rows of monotonous houses, and sufficient social ferment to satisfy the greediest investigator. May we not ask for a little more support? Next year the Association meets at Edinburgh.

Summary of Proceedings.

Tuesday, August 24th, was devoted to matters agricultural. Mr. L. Smith Gordon, well known as an author and pioneer of

agricultural co-operation in Ireland, stated the case for the better organisation of the business side of agriculture. Will farming follow manufacture and end in large farms run on factory lines; or is there a serious rival in the co-operative society, which leaves the farmer alone as a grower of produce, but unites him for purchase of materials and implements and for the finishing and marketing of his products? If English farmers are still shy of accepting the second alternative, there is no such hesitation in California or Canada or other parts of the New World, where co-operative organisation is already assuming, not merely an economic, but also a political significance. Mr. Smith Gordon sees the farmer of the future as "something much more than a farmer, as that name is now understood. He will become a manufacturer and a business man, with a large part of his attention focussed on the small factory, creamery, distillery, bacon factory, abattoir, or the like, in which he is particularly interested."

Mr. J. Lassen followed with an account of the Danish Credit Corporations. These are land banks, whose bonds are as much in favour with the Danish public as State and Municipal securities. Though not co-operative banks in the sense of the Schulze-Delitzsch or Raiffeisen banks, they are organised from the standpoint of the borrowers or users of capital. Is there scope for a similar development in agriculture or building in England? As the result of private sales, farmers are now becoming the owners of great blocks of land; and, if in addition an efficient system of land registration and land transfer is established, the land bank may in no distant future come into its own in this country. Similarly, in building there is something sadly lacking. The building society seems to have lost its old driving force; the municipality is doing a little, but on terms that do not pay. We are persuaded that it is only by voluntary organisations of house consumers, like the Tenants' Co-partnership Societies, that we shall make any headway in this paralysed industry. And here, too, an organisation like the Danish Credit Corporation would assist.

Tuesday's programme included also an able plea for Decimal Coinage by Mr. H. Allcock.

The experiment of deferring the President's Address (printed supra, p. 423) till the second day (Wednesday) was successful, a number of members from other sections being thus able to attend.

Mr. J. G. Cheetham, a local authority, followed with a paper on "Coal Supplies and the Effects of Diminished Output on

Cardiff Shipping." He showed that in the last few months an increasing number of vessels left Cardiff in ballast, and that one effect of the check to the coal export trade was a slump in the value of tonnage. "A boat offered for £240,000 a few weeks ago was offered for £180,000 a few days ago. . . . The coal exporters and their employees were short of work, the middleman, as such, had been practically squeezed out."

Mr. R. F. Adgie, of Clare College, Cambridge, reviewed the position of the mining industry in its economic and psychological aspects with regard to their bearing on the socialisation of ownership and control. He argued that economic considerations demanded a policy of unification, which could be attained under the existing capitalist system, but that the *morale* of capitalism in the mining industry was breaking down, and that on the whole the psychological factors told in favour of nationalisation. His statement that technical staffs were willing to serve under a nationalised system was challenged by a local gentleman, late general manager of Messrs. Cory Bros.; and we could wish that Mr. Adgie had brought with him the volume of the Coal Commission from which, we presume, his statement was taken.

Thursday was devoted to Finance. Mr. A. H. Gibson gave a lengthy paper on "Credit, Inflation, and Prices," reviewing in turn the evolution of bank credit from the time of the goldsmith bankers, the modern functions and duties of banks, the peculiar position of the Bank of England, and the change in the banking position since 1914. This country, he argued, was going to pay a very high price for the inflation effects following the creation of about £1,800,000,000 additional available purchasing power during and since the war. "Inflation could have been avoided to a considerable extent during the war by a firmer Government financial policy. Greater use should have been made of the weapon of taxation, and compulsory loans to the Government should have been instituted, if necessary, after suitable warning."

Mr. A. J. Beamish (of Corpus Christi College, Cambridge) followed with a paper which provoked a first-rate discussion. He made perfectly clear at the outset the sense in which he used "inflation"—namely, depreciation of the pound sterling in dollar exchange—and, without attributing this depreciation to wilful Governmental blunders, he urged that the return to a gold standard was a process fraught with difficulty and only attainable by a drastic contraction of expenditure. Several local bank managers and accountants (to whose hospitality, we would gratefully remark, the Section was indebted for a motor trip to the

Ebbw Vale Steel Works) took part in the discussion. The session closed with a short paper by Mr. R. Trouton (of King's College, Cambridge) on "The Liquidation of International Debts," his thesis being "the fact that it was advantageous during the war for some countries to furnish mainly finance and others mainly men is not a reason for making the latter pay a tribute to the former." We could wish that there had been representatives present from France and America to present their respective points of view.

On the last morning, Friday, Sir Edward Brabrook, ex-President and staunchest supporter of Section F, submitted reports from the Sub-Committees on (1) Credit, Currency, and Finance, and (2) Cheaper Travelling Facilities. He has the address and enthusiasm of a young man, and we hope that for many years more he will honour Section F by his presence. The final paper of the morning was by Mrs. Wootton, of Girton College, Cambridge. The title of her paper was "On the Future of Earning." By the help of tables on the blackboard she instituted comparisons between wages increases, increases in wholesale and retail prices, and the increase in the actual expenditure by a representative working-class family during and since the war. She made a very pretty point of the way in which actual expenditure, which was kept down by rationing during the war, has now drawn level with the increase in retail prices. Professor W. J. Roberts, of Cardiff, Local Secretary for the Section, opened the discussion, and all who took part paid tribute to the humour of the reader and her skill in marshalling figures and elucidating the extent to which "subsidies" enter into the annual quantity of goods consumed by the working classes. Shall you pay a man according to the value of his work or the size of his and his family's stomachs? There is a big difference between the two methods; and though most of us are reconciled to a minimum wage which is really a minimum, few can contemplate with equanimity the prospect of a society in which what you do counts for little by comparison with what you pronounce essential to the standard of living you have elected to demand.

C. R. FAY, *Recorder of Section*

NOTE ON RECENT CURRENCY EVENTS IN RUMANIA

THE Rumanian Government has recently withdrawn the Kronen and Rubel notes circulating on Rumanian territory, with the result that the Lei notes are now the only legal tender of the country.

In the year 1919 the Rumanian Government counter-stamped the Kronen notes circulating in the territories which belonged formerly to Austria-Hungary. It was unable to withdraw them immediately, for the National Bank did not possess the necessary quantity of Lei notes amounting to several billions. These notes had been ordered abroad, but they did not arrive until July, 1920.

In August, 1920, the Government ordered the registration of the amounts of Kronen possessed by particular individuals. The rate of exchange was not yet fixed, and at that time the majority of the public expected a very unfavourable exchange rate to be fixed, inasmuch as the illicit rate varied between 350 and 420 counter-stamped Kronen for 100 Lei. As they expected an improvement sooner or later in the exchange rate for Kronen, they declared for registration only part of the Kronen notes they possessed. Furthermore, a considerable part of the village population were not able to declare their stocks in good time.

During the few days that elapsed between the date of registration and the beginning of the withdrawal of the notes everybody wanted to get rid of their registered Kronen notes. The shops were overcrowded as never before, and the pessimistic public purchased enormous quantities of goods without asking their price.

The business of withdrawal began on September 1st, at a rate which took everyone by surprise. Two Kronen were exchanged for one Leu. As the quantity of Lei notes ready printed was still insufficient, only 60 per cent. of the withdrawals have been paid in cash, temporary receipts which were not negotiable being given for the remaining 40 per cent.

The consequence of the favourable exchange rate was that everyone wanted to exchange the whole amount of Kronen notes they possessed. Yet nobody could exchange more than he had declared for registration. The speculators who hoarded the Kronen notes, as well as the merchants and manufacturers whose note stocks had been enormously increased, in consequence of the above-mentioned purchasing fever of the public, were given receipts only for the time being for their excess holdings above what they had declared personally. Eventually the origin of these holdings is to be revised by special committees, which will treat those which have been acquired in good faith similarly to the amounts registered by the original holders.

Although statistical data of the withdrawal are not yet available, it is obvious that the Lei note circulation of the territories

concerned is much less than half the amount of the former Kronen note circulation. Even if everybody had been able to exchange the whole amount of Kronen notes they held, the Lei circulation would be, allowing for the 40 per cent. which have been withdrawn against receipts, only 30 per cent. of the Kronen circulation. The excess holdings of speculators and merchants, referred to above, which have not been exchanged were—according to unanimous reports of the whole Rumanian Press—very considerable. We may put them, without exaggeration, at another 20 per cent. of the original amounts. This signifies that not 40 per cent., but 60 per cent. of the Kronen notes have been withdrawn, not in exchange for Lei notes, but against receipts. Thus, instead of 50 per cent., the Lei circulation is only 20 per cent. of the former Kronen circulation. As the receipts are not negotiable, and the date of their repayment is quite uncertain, they do not represent actual purchasing power.

The price of every sort of commodities and services has been nominally halved in consequence of this transaction. Everything became half as much in Lei as it was in Kronen. Naturally, this situation lasted only during the period that immediately succeeded the withdrawal transaction. The price of home products of the territories concerned remained substantially unchanged for several months. The prices of imported articles decreased suddenly, partly because they were cheaper in the old kingdom, partly in consequence of compulsory price limitations of the authorities. Yet these ulterior changes are not important from the present point of view. The only essential phenomenon which ought to be emphasised is that the prices in Lei were, immediately after the operation of withdrawal, just 50 per cent. of the prices in Kronen. Merchandise which was worth on August 31st 200 Kronen, became worth on September 1st 100 Lei.

This seems to be quite natural and simple. Yet if we take into consideration that the nominal amount of the note circulation decreased not to the half but to one-fifth of its nominal amount, and, besides, that 100 Lei on August 31st were worth not 200 Kronen but about 400 Kronen, we have to admit that the phenomenon we are confronted with is not at all simple. If, on August 31st, the question had been raised, what will be the immediate effect on prices of a transaction under exactly the same circumstances as described above, probably only a very small percentage of economists would have replied that prices would just halve.

Professor Irving Fisher writes the following on this subject[1]: ". . . Let us suppose the Government to *double the denominations* of all money; that is, let us suppose that *what has been hitherto a half-dollar is henceforth called a dollar*, and that *what has hitherto been a dollar is henceforth called two dollars.* Evidently, the *number* of 'dollars' in circulation will then be *doubled*; and the price level mentioned in terms of the new 'dollar' will be double what it would otherwise be. *Thus we see how the nominal quantity of money affects price levels.* . . . It is the number and not the weight that is essential."[2]

Yet in the case of the withdrawal of the Kronen notes, for the reasons stated above, an extraordinary exception has taken place. The Rumanian Government *halved the denominations of all money*; that is, *what has been hitherto a Kronen is henceforth called a half Leu, and what has hitherto been two Kronen is henceforth called one Leu.*[3] However, the "*number of monetary units in circulation*" has not been halved, it has been reduced to one-fifth. Thus it was *not* "the nominal quantity of money" that affected the price level. Although the State defined the relation between the old money, Kronen, and the new money, Lei, as two to one, the nominal amount of note circulation decreased, not by 50 per cent., but by 80 per cent. Even if the objection is raised that the temporary receipts do possess actual purchasing power, there remains still a difference (20 per cent.) of the excess holdings retained. Thus, even according to this conception, the nominal quantity of note circulation did not decrease by 50 per cent., but by 40 per cent.

PAUL EINZIG

RECENT OFFICIAL PAPERS.

Journal of the Department of Agriculture in Ireland. Vol. XX. No. 3.

The usual record of agricultural experiments and achievements is diversified by two remarkable communications to the Council of Agriculture. Mr. Gill, retiring from the Secretaryship, records with satisfaction the pacific influence of co-operation. For instance, at the Sligo Technical School lately, in the midst of tumult in other spheres, he heard a resolution moved by the Sinn Fein Mayor, seconded by the Protestant Rector, who was a Unionist pamphleteer, and supported by labour members and employers of labour. Dr.

[1] Irving Fisher, *The Purchasing Power of Money*, New York, 1920, pp. 29–31.

[2] Italics are mine.

[3] That it is not the same notes the denomination of which has been changed, but that new notes were issued, is an unessential technical difference.

Kelly, Bishop of Ross, denounces a "worker's" or "proletariat" republic as unsuited to Ireland, where ownership is so widely diffused, 552,000 out of the total 910,000 families being occupiers of land.

Sixty-fifth Annual Report of the Registrar-General for Scotland, 1919. [Cmd. 980.]

The birth-rate was 21·71 per thousand, 1·54 higher than the previous year, but 2.64 below the mean of the previous decade. There was a birth of "quadruplets," all four alive. The marriage-rate was 9.02 per thousand, 1·45 above that of 1915, previously the highest. The death-rate was 15·35 per thousand, a very little less than that of the previous quinquennium and decade.

Report on the Employment of Women and Young Persons on the Two-shift System. [Cmd. 1037.]

A case has been made out for allowing the adoption of the system in certain industries; but the question has not yet passed out of the experimental stage.

CURRENT TOPICS

THE following have been elected to membership of the Royal Economic Society:—

Ahmad, F.
Alworth, Marshall W.
American Institute of Accountants.
American International Corporation.
Ayoub, J. H.
Bagley, F. P. (life).
Baker, E. R.
Banerjee, R. R.
Barabino, E.
Basu, Prof. P. C.
Bauer, Prof. S.
Behre, T. S.
Bein, E. B.
Bell, Dr. J. W. (life).
Birch, G., M.B.E.
Blakey, Roy G. (life).
Blood, J. B.
Brain, E. R.
Brindley, J. E. (life).
Brown, H. J.
Buie, Walter A.
Burbank, Prof. H. H. (life).
Byers, Isaac W. (life).
Cancio, Dr. Leopoldo.
Canfield, A. J. (life).
Carter, R. A.
Charnan, F. R.
Coats, R. H.
Collings, Harry T. (life).
Compton, Wilson (life).
Curtis, G. L.
Cushny, T.
Dahl, Gerhard M.
Day, Prof. E. E. (life).
Desai, M. H. (life).
Diamond, J. Waisman.
Dominion Bureau of Statistics, the Department of Trade and Commerce, Ottawa.
Douglas, Paul H.
Dreher, Harold J. (life).

Duguid, D. S.
Dunn, C. W. (life).
Eaves, Lucile (life).
Eliott, Gilbert.
Ellis, George W. (life).
Ewalt and Waggener
Fayant, Frank H.
First National Bank, St. Louis.
Fisk, Harvey E.
Fletcher, Henry.
Frame, S. J. (life).
Fraser, T. H. (life).
Frederiksen, D. M.
Friday, David (life).
Galliver, George A.
Ghosh, P. C.
Goodhue, Everett W.
Goodwin, J. E.
Green, R. W.
Guinness, A. R.
Guleri, Prof. J.
Hamill, Charles H. (life).
Hammond, John H. (life).
Hannon, P. J. H.
Heath, A. W. (life).
Hewes, Amy.
Hodge, C. H.
Hodge, D. H.
Hitchcock, Rev. Dr. G. S. (life).
Holmes, H. C.
Hope and Co., Amsterdam.
Hopkins, Louis J. (life).
Hopson, H. C. (life).
Insull, Samuel (life).
Johannsen, N.
Jones, Capt. O. J.
Jue, J. H.
Keator, C. E.
Kellogg, Dr. J. H.
Kimber, A. W.
Kleene, G. A. (life).
Knight, W. A. (life).
Koster, F. J.
Kwok, Yam-Tong.
Landone, Brown.
Lewis, A. G. Baker (life).
Loomis, Robert H. (life).
Luboff, E.
McAleer, C. L.
McCarthy, C. P.
Maclean, Sir Donald, K.C.
McClellan, George B. (life).
McDonald, Jesse.
Maung, M. T.
May, George O. (life).
Mears, Eliot G.
Metcalf, Maynard M. (life).
Miller, Mrs. E. C. T. (life).
Morgan, J. Pierpont (life).
Morris, E. B.
Morris, Ray.
Moyer, Melbourne S.
Muller, Jean P. (life).
Murdoch, J. H.
Musafar, K. C.
Nagel, Charles (life).
Napier, E. S.
Ochs, Adolph S.
Okami, S.
Oseroff, A.
Otzuka, K.
Oung, Maung T.
Papazian, G.
Parker, Prof. C.
Patterson, Stewart.
Patil, R. S. (life).
Peavey, L. D.
Pfeiffer, C. G. (life).
Putnam, Bertha H.
Pye, P.
Rai, S. C.
Ramsay, A.
Raynes, George W. (life).
Read, A. S.

Roberts, G. E.
Robins, Kingman N. (life).
Rochester Bureau of Municipal Research, New York.
Routh, J. W.
Saunders, Capt. C. L.
Scholz, E. M.
Secretariat General des Œuvres Sociales Chrétiennes de Belgique.
Sen, D. K.
Shaw, A. W.
Sisson, F. H.
Smith, J. B.
Smyth, William H. (life).
Snavely, T. R.
Sri Krishna.
Stein, Ernst.
Sterrett, J. E. (life).
Stout, C. F. C. (life).
Stroock, S. M.
Subercaseaux, Guillermo (life).
Tait, D. C.
Tanenbaum, Jerome.
Thatcher, W. S. (life).
The Anglo-South American Bank, Ltd.
The Chemical National Bank of New York.
The Director of the International Intermediary Institute, The Hague.
The Toronto Carpet Manufacturing Co., Ltd.
Vanderlip, P. A.
Van Hasselt, Dr. N.
Voegelin, F. E. (life).
Warburg, Paul M.
Watt, Rev. Lewis, S. J. (1921).
Watson, R. A.
Weil, C. A.
Wessmann, A. C. (life).
Wilson, H. L.
Western Electric Company, Incorporated, New York.
Wood, William Allen (life).
Woodbury, Robert M. (life).
Woodward, M. F.
Wolfe, F. E. (life).
Wright, Stanley F. (life).
Young, Allyn A. (life).

The following have been admitted to library membership:—Bibliothek der Britisch-Deutschen Stiftung; Commercial Library, Birmingham Public Libraries (1921); Economic Club, Portage la Prairie, Manitoba; Metropolitan Life Insurance Co., New York City; National City Financial Library, New York; National Industrial Conference Board, Boston; National Unionist Association Reference Library; Prince Consort's Library, Aldershot; Reading Room Association, Tufts College Library, Mass. (1921); Smethwick Public Library; The Commercial Museum Library, Philadelphia; The Grain Growers' Guide, Winnipeg; The John Rylands Library; The Mitchell Library, Glasgow; University of Arkansas Library; University College Library (1921); and Wallaces' Farmer, Iowa.

An International Free Trade Conference, convened by the Cobden Club, was held in the Caxton Hall on October 5th, 6th

and 7th, at which the following were discussed: (1) "The World's Existing Economic Position: How far can it be remedied by Free Trade?" Paper by Mr. Hartley Withers; chairman: Lord Beauchamp. (2) "The High Cost of Living: How far can it be remedied by Free Trade?" Paper by Miss Van Dorp; chairman: Mr. J. A. Spender. (3) "Financial Stability: How far can it be restored by Free Trade?" Paper by M. Yves Guyot; chairman: Sir George Paish. (4) "The Open Door." Papers by Mr. J. A. Hobson and Professor Kielstra; chairman: Lord Sheffield. (5) "Free Trade as a Necessary Condition of an Effective League of Nations." Papers by Mr. Chas. Roberts, M. Gaston Moch, Mr. Edouard Bernstein; chairman: Professor Gilbert Murray. (6) "The Danger of Protection in Great Britain." Paper by Mr. F. W. Hirst; chairman: Sir Hugh Bell. The Conference was concluded by a dinner at the Hotel Cecil on October 7th, at which Sir John Simon presided.

Sir James Douie writes:—"An apology is due to Mr. Brij Narain for the criticism in the last two sentences of the review of his *Essays on Indian Economic Problems* (Economic Journal, September, 1920, p. 393). The author's statement was not incorrect, as the critic supposed. A long residence in India had so accustomed the latter to a silver coin, equal in value to sixteen copper coins, that he inexcusably read 18½*d.* as 1*s.* 2½*d.*"

The Court of Aberdeen University will proceed shortly to elect to the Chair of Political Economy, founded by the liberality of Sir Thomas Jaffrey, one of Aberdeen's most prominent citizens. The endowment will provide a yearly income of upwards of £1,000 (one thousand pounds), and the Professor appointed will be entitled to a liberal pension. Particulars of the appointment can be obtained from the Secretary of the University, Marischal College, Aberdeen.

Metron, the new international review, is designed to promote the knowledge and appreciation of statistical work done in different countries. Such work is now buried in journals published in different countries and dealing with various sciences, astronomy, agriculture, botany, chemistry, and so on, through a whole alphabet of special subjects. In addition to a bibliography of publications received, each number of the review will contain

one or more analyses of statistical works or of results perhaps taken from works not exclusively statistical in character. Each such analysis will deal with a particular branch of statistics, *e.g.*, demographic sanitary, anthropometric or economic statistics. There will also be an analysis of sources and of mathematical work bearing upon statistics (calculus of probabilities, interpolation, etc.). *Metron* will be catholic; its pages will be open to those who employ no methods beyond the scope of ordinary cultivated men as well as to those who delight in the most refined and subtle developments of mathematical science. Though published in Italy, *Metron* will admit French, English and German on terms of complete equality with the Italian language. The editor and proprietor is a distinguished Italian, Professor Corrado Gini. But among the Editorial Committee are representatives of many countries: Professor Andreades, D. M. Greenwood, Dr. G. H. Knibbs, Ing. L. Marck, Dr. R. Pearl, and other well-known foreign statisticians.

BEGINNING in January, 1921, the London School of Economics and Political Science proposes to issue a Journal of Studies, embodying contributions by members of the staff, research students, and others connected with the Institution. The contributions will range over the fields of economics, statistics, commerce and geography, public administration, political science and sociology—covering, in fact, all the aspects of the intellectual activities of the School. The price will probably be 7*s*. 6*d*. post free for the three numbers to be published in the year, each number to contain between 90 and 120 pages of matter. The Journal will be administered by an Editorial Board consisting of Professor A. L. Bowley, Professor E. Cannan, and Professor Graham Wallas; Mr. T. E. Gregory, to whom all communications should be sent, acting as Secretary.

DR. SOLOMON BLUM, Associate Professor of Labour Economics in the University of California, desires to arrange an exchange of posts with a professor or lecturer of a British University for the year 1921–22. A teacher who could arrange to take his place would have an interesting opportunity of studying economic conditions and the teaching of economics in America. Anyone who wishes to take the exchange into consideration should communicate with the Universities Bureau, 50 Russell Square, W.C.1.

RECENT PERIODICALS AND NEW BOOKS

Quarterly Review.

OCTOBER, 1920. *British Rationing during the War.* G. E. UNDERHILL. By April out of the 39 million persons in Great Britain above 35¾ million were rationed for butter and margarine, 17½ million for tea, 15¼ for meat, etc. The development of the system is traced; and the causes of our success are shown. *The Labour Party and its Policy.* SIR LYNDEN MACASSEY. The programme of the Labour Party both as to domestic and foreign policy is described, and their affinity to various Socialist movements is shown. Criticism and advice follow.

Contemporary Review.

OCTOBER, 1920. *The National Direction of Industry.* SIR LEO CHIOZZA MONEY. In war we got what we wanted by organisation; "in peace we resign ourselves to the ancient scramble."

NOVEMBER, 1920. *The New Industrial Revolution.* J. A. HOBSON. Not the abolition of property, but "to rescue humanity from the thraldom of mechanical industry" by distributing unpleasant work equitably is the essential object.

The Nineteenth Century.

NOVEMBER, 1920. *The National Wage Position.* SIR LYNDEN MACASSEY. The expiration last September of the Act which compelled employers to pay the same rate of wages as at the date of the Armistice is among the complexities caused by the war which call for the "sound wage principles" and "wage-fixing machinery" offered by the writer.

Quarterly Journal of Economics (Cambridge, Mass.).

AUGUST, 1920. *The American Merchant Fleet.* EDMUND E. DAY. The development of the fleet during the war and the use to be made of it in peace are considered. *The Royal Commission on the British Income Tax.* A. C. PIGOU. The principal changes introduced by the Commission are lucidly exhibited. *The Meat-packing Investigation.* G. O. VIRTUE. *The Accuracy of Labour.* L. KOTANY. Interesting examples go to show that accuracy of work is inborn, *sui generis*, not resolvable into "crystallised labour time." *The Grain Corporation and the Guaranteed Wheat Price.* WILFRED ELDRED. *The Transition from Government Control of Sugar to Competitive Conditions.* JOSHUA BERNHARDT. The public spirit and business ability dis-

played in war time are no longer available for Government control.

Among many interesting reviews there is a useful summary of the literature of Guild Socialism.

American Economic Review.

SEPTEMBER, 1920. *Price Economics versus Welfare Economics.* FRANK A. FETTER. The leading characteristics of Ricardian ("classical") economics—(1) implicit belief in *laissez-faire*, (2) commercial sympathies and the employers' point of view, (3) monetary standards—met with opposition from *six* quarters. *British Income-tax Reform.* ALZADA COMSTOCK. The final report of the Royal Commission is summarised, with criticism of some features, *e.g.*, "the refusal to consider the adoption of a mathematical formula to smooth tax rates and continue progression." *The Transportation Act of* 1920. EDGAR J. RICH. An analysis of the constructive railway legislation passed by the last Congress. *Integration in Marketing.* LEWIS H. HANEY. A review and criticism of combinations such as that among the separate marketing stages (wholesale and retail) or that of marketing with industry. *Capital Investment and Manufacturing Costs.* STANLEY E. HOWARD. "Is interest a manufacturing cost?" The quéstion has exercised the American Institute of Accountants.

The Review of Economic Statistics (Cambridge, Mass.).

JULY, 1920. The special feature of this number is a study on the *World's Gold Supply*, presenting the recent, and forecasting the future, output in the principal gold-producing countries. Altogether there is no serious danger of shortage, especially considering that the gold imported into India and China, or employed in plate and jewellery, is not lost to the world.

AUGUST. *World Banking and Currency: A Review of Recent Developments.* Among many interesting observations and statistics there occurs a good analysis of the various processes by which inflation was accomplished in different countries.

SEPTEMBER. *An Index of the Physical Volume of Production.* The growth of twelve important crops relatively to 1909–13 as base is tabulated for the years 1879–1920. The general average shows a rise from 80.9 in 1900 to 115.2 in 1920.

OCTOBER. The index of physical volume for *Mining* represents ten minerals (six metals, three coal products and petroleum). The general index-number has more than doubled since 1900, while population has increased in the ratio 155 : 213.

Annals of the American Academy (Philadelphia).

SEPTEMBER, 1920. *Labour, Management and Production* is the theme of articles relating to American industry, purporting to be the joint work of "leaders of the organised workers" and "scientists of industry."

Journal of Political Economy (Chicago).

OCTOBER, 1920. *Harmonising the Interests of Farm Producer and Town Consumer.* E. G. NOURSE. *International Private Agreements in the Form of Cartels, Syndicates and other Combinations.* WILLIAM NOTZ. *Interest during Construction.* W. A. PATON.

Journal des Economistes (Paris).

JULY, 1920. *Le Projet de Finance Britannique.* W. W. J. WILLIAMS. *Pensions Civiles et Militaires.* J. GIRARD. *La Détermination des Prix en Temps des Crises.* R. DOUCET. *Le Procès du Capital.* A. RAFFALOVICH.

OCTOBER, 1920. *L'Endosmose Bolchévique.* YVES GUYOT. *L'Enquête Monétaire de la Société des Nations.* A. RAFFALOVICH.

Revue d'Economie Politique (Paris).

JULY–AUGUST, 1920. *La Monnaie dans la Nouvelle République Autrichienne.* X. *Le Problème des Nationalisations et le "Guild Socialism" en Angleterre.* E. LASKINE. The views of Mr. G. D. H. Cole and other Guild Socialists are set forth at length and summarily criticised. *Considerations sur le Mercantilisme.* RENÉ GONNARD. *L'Inégalité devant la Mort d'après les Statistiques de la Ville de Paris.* L. HERSCH. (Continued from MAY–JUNE.) The great differences in mortality observed between districts are not so great as the difference between classes of the population, since the rich districts contain many poor and the poor districts some rich. Among the *Notes et Memoranda* are a resumed appreciation of Prof. Vilfredo Pareto's great treatise on Sociology and a review of M. Colson's *Cours d'Economie Politique.*

SEPTEMBER–OCTOBER, 1920. *La Situation Monétaire de Roumanie.* D. J. GHEORGIU. *Le système dit d' " économie mixte " dans les Entreprises publiques en Allemagne.* R. KAEPELLIN. *La Guerre et les Ouvrières britanniques.* MARIE-LOUISE PUECH. The effect of war work on the wages, health and family life of the " munitionettes " is considered. *Allocations pour charge de Famille.* P. RICHEMOND. Plans for increasing the wages of workpeople supporting children (" *sursalaire familial* "). *Le Morcellement parcellaire en France.* A. GIRAULT.

Archiv für Sozialwissenschaft und Sozialpolitik (Tübingen).

AUGUST, 1920. *Bolschewismus.* DR. MAX HIRSCHBERG. A vigorous criticism of revolutionary Socialism. *Ein system der Sozialisierung.* O. NEURATH. *Bevolkerungsfragen.* HENRIETTE FÜRTH. After-war problems of population.

De Economist (La Hague).

SEPTEMBER, 1920. *Geldwaarde en prijspeil.* Prof. Dr. C. A. VERRIJN STUART. A study on the value of gold and the level of prices. *De depreciatie van het Nederlandsche betaalmiddel,*

W. C. MEES. On the depreciation of the Dutch currency with respect not only to goods but also the legal standard, gold.

NOVEMBER. *Eerste Gloren.* A. VERRIJN STUART. "First glimmers" of hope for suffering Europe dawn from the Free Trade Conference and the "Fight the Famine Council," which were held in London last October. *Vrijhandel en kosten van levensonderhoud.* E. C. VAN DORP. The old argument that the withdrawal of Protection would disturb established interests has lost its force now that everything is "topsy-turvy." The old arguments for Free Trade are strengthened.

Scientia (Bologna).

VOL. XXVII. N XCVIII–6. *Verso un nuovo assetto economico?* A. LORIA. The considerable social transformation in Western Europe resulting from the war pale before the tremendous Russian tragedy; which is explained as a duel between two philosophical systems—between, say, Bergson and Spencer or Plato and Aristotle.

Giornale degli Economisti (Rome).

AUGUST, 1920. *Contributi critici alla finanza teoretica.* G. BORGATTA.

SEPTEMBER. *Solidarietà economica e concorrenza commerciale.* C. BRESCIANI TURRONI.

La Riforma Sociale (Turin).

SEPTEMBER–OCTOBER, 1920. *I numeri indici Necco per il* 1917 *ed il* 1918. A. GARINO-CANINA. Index numbers for various countries are compared with figures in Italy calculated by the "Necco" method, comparing each year with its predecessor (as explained in the Supplement to the *Riforma* for September, 1910). Attention is called to differences in the rise of prices for exports and for imports. *Di una proposta del Rignano. . . .* MARIO ROTUNDI. A criticism of Prof. Rignano's plan of taxing inheritances (as to which see ECONOMIC JOURNAL, 1919, p. 342).

Metron (Venice).

VOL. I., No. I., 1920. *La méthode statistique.* L. MARCH. *Ueber Funktionen von Variablen zwischen welchen Korrelationen bestehen.* E. CRUBER. *Sui Coefficienti di variabilità.* F. VINCI. *Entomological Statistics.* F. Y. EDGEWORTH. *La coscrizione militare dal punto di vista eugenico.* C. GINI. *The Theory of Large Population Aggregates.* G. H. KNIBBS. *Della misura statistica dell' abilità dei giocatori nelle corse al galoppo.* G. ZINGALI. *La fiscalité de guerre.* J. BOURDON. *Sulle applicazione del calcolo della probabilità alla fisica molecolare.* F. P. CANTELLI. *Ridolfo Livi.* C. GINI.

NEW BOOKS

English.

BAILWARD (W. A.). The Slippery Slope, and other papers. London: Murray. 1920. Pp. 236. 10*s*. 6*d*. net.

[A collection of essays on Poor Law Administration and other Social Problems; including a severe criticism of the Minority Report on the Poor Law.]

BLOOMFIELD (DANIEL). Selected Articles on Modern Industrial Movements (Handbook Series). London: Pitman. Pp. xxii + 377.

[A collection of articles by various writers, including Bertrand Russell and G. D. H. Cole; compiled by Daniel Bloomfield; with an introduction by Meyer Bloomfield.]

BONCHE (O. FRED). Limits of Socialism. London: Macmillan. 8*s*. net.

BROOKS (JOHN GRAHAM). Labour's Challenge to the Social Order. London: Macmillan. 15*s*. net.

[To be reviewed.]

BROWN (IVOR). English Political Theory. London: Methuen. 1920.

[To be reviewed.]

BURKE (JOHN F.). Outlines of the Industrial History of Ireland. (International School Series). Dublin: Fallon. 1920. Pp. 282.

CLEVELAND (FREDERICK A.) and BUCK (ARTHUR E.). The Budget and Responsible Government. New York: Macmillan Co. 1920. Pp. 406.

DANIELS (G. W.). The Early English Cotton Industry, with some Unpublished Letters of Samuel Crofton. Introductory chapter by George Unwin. Manchester: University Press. 1920. Pp. 214.

[To be reviewed.]

EDIE (LIONEL D.). Current Social and Industrial Forces. Edited by L. E. Introduction by J. H. Robinson. London: Pitman. 12*s*. 6*d*. net.

[A selection of extracts from well-known writings.]

EWBANK (R. B.). Indian Co-operative Studies. Edited by R. B. Ewbank, with an introduction by Henry W. Wolff. London, Bombay, Madras: Oxford University Press. 1920. Pp. 266.

FIELD (G. C.). Guild Socialism. A critical examination. London: Wells Gardner. 1920. Pp. 158. 5*s*. net.

[The author is Lecturer in Philosophy in the University of Liverpool.]

FLANAGAN (JAMES A.). Wholesale Co-operation in Scotland. Glasgow: Co-operative Wholesale. Pp. xiv + 478.

[In commemoration of the Jubilee of the Scottish Wholesale Co-operative Society.]

FREDERICK (J. G.). Business Research and Statistics. London: Library Press. Pp. x + 342. 15*s*. net.

HARE (SIR LANCELOT). Currency and Prices. London: King. Pp. 74.

HEATON (HERBERT). Yorkshire Woollen and Worsted Industries. From the earliest times up to the industrial revolution. Oxford: Clarendon Press. 1920. Pp. 459.

[To be reviewed.]

HERFORD (R. O.) and JENKINS (H. G.). Outlines of Industrial Administration. London: Pitman. Pp. ix + 122 6s. net.

HETHERINGTON (H. J. W.). International Labour Legislation. London: Methuen. Pp. 194.

[To be reviewed.]

HIGGS (RICHARD). Wealth and Freedom. Dover: Dover Publishing Co. Pp. xi + 256.

Industrial Unrest and Labour Policy. Report of the Industrial Committee of the National Party. 1920. 9*d*.

International Financial Conference. Printed for the League of Nations. London: Harrison.

[Papers on Currency Statistics, Public Finance, International Trade, etc.]

International Law, British Year Book of. London: Frowde. 1920-21. Pp. 292.

[International law is still a "living force" to be directed by science; such is the purport of the introduction contributed by the Editorial Committee, consisting of Sir Eric Richards, Prof. A. Pearce Higgins, Sir John Macdonell, Sir Cecil Hurst, E. A. Whittnets. The Editor is Cyril M. Picciotto. All but one of the editors contribute articles.]

JANICHI (DR. S.). Industrial Reconstruction in Poland. London: Polish Press Bureau. 1920. Pp. 32.

[A statistical estimate of the present condition of the several leading industries, greatly injured by the war, now reviving notwithstanding deficient coal and disordered currency.]

KIRKALDY (A. W.). Wealth, its Production and Distribution. London: Methuen. 5*s*.

[To be reviewed.]

MACLAURIN (ROBERT). The Oversea Illusion: Its Amazing Effects on Wages, Prices, and Output. London: G. Bell. 3*s*. 6*d*. net.

NICHOLSON (PROF. J. SHIELD). The Revival of Marxism. London: Murray. 1920. Pp. 145.

RAMMAYA (K. H.). Review of the Foreign Rail-borne Trade of the Mysore State for the year 1918–19. Bangalore. 1920. Pp. 273.

[The author is Deputy Director of Commerce and Statistics in Mysore.]

RAVEN (CHARLES E.). Christian Socialism. London: Macmillan & Co. 17*s*.

REA (RUSSELL). The Triumph of Free Trade. London: Macmillan. 1920. Pp. 384. 15*s*. net.

[To be reviewed.]

REDFERN (PERCY). The Consumers' Place in Society Manchester: Co-operative Union. Pp. 107. 2*s*. 6*d*.

[A "consumer's consciousness" should be developed.]

ROBINSON (JESSE S.). The Amalgamated Association of Iron, Steel, and Tin Workers. (Johns Hopkins University Studies.) Baltimore: Johns Hopkins Press. Pp. 166.

SLATER (GILBERT). The Making of Modern England. London: Constable. 1919. Pp. 303.

SNOWDEN (PHILIP). Labour and National Finance. London: Parsons. 1920. Pp. 160. 4*s*. 6*d*.

SPRINGER (LEOPOLD). Some Aspects of Financial and Commercial After-war Conditions. London: P. S. King. Pp. 118. 5*s*. net.

SUNDT (EINAR). Imagination, Labour, Civilisation. With bibliographical introduction by S. C. Hammer. London: Heinemann. 1920. Pp. 417.

TORNQUIST (E.). Business Conditions in Argentina. Buenos Aires.

VISVESVARAYA (SIR M.). Reconstructing India. London: King. 1920. Pp. 326.

WEST (JULIUS). A History of the Chartist Movement. London: Constable. 16s.

WRIGHT (STANLEY). Kiangsi Native Trade and its Taxation. Shanghai. 1920. Pp. lxxxvii + 203.

YULE (G. Udny). The Fall of the Birth Rate. A paper read before the Cambridge University Eugenics Society. Cambridge: University Press. 1920. Pp. 43.

[Fertility is subject to natural fluctuations; which may account for the recent fall in birth rate as it does for the rise in Connaught, 1871–1911.]

American.

ANDERSON (B. M.). The Fallacy of the Stabilised Dollar. New York: Chase National Bank. August, 1920. Pp. 16.

[A severe indictment of Prof. Fisher's plan, as impracticable in war time, internationally inapplicable, no remedy for social discontent.]

BRADLEY (HARRIETT). The Enclosures in England: an Economic Reconstruction. (Columbia University Studies.) New York: Columbia University Press. London: P. S. King. 3s. net.

CHUNG SU SEE. The Foreign Trade of China (Columbia University Studies). New York: Columbia University. London: P. S. King. 1919. Pp. 451.

[To be reviewed.]

CLEVELAND (FREDERICK A.) and BUDE (ARTHUR E.). The Budget and Responsible Government. With an Introduction by William Howard Taft and a Note by the Editor (Professor Samuel McClune Lindsay). New York: The Macmillan Company, 1920. Pp. xxxiii + 406. 8vo. Price 17s. net.

[This useful volume of the American Social Progress Series is a description and interpretation of the struggle for responsible government in the United States, with special reference to recent changes in State constitutions and Statute laws providing for administrative reorganisation and budget reform. The introduction by ex-President Taft is especially noteworthy.]

COPE (H. W.). Education for Democracy. New York: Macmillan Co. Pp. 275.

ECHEL (E. C.). Coal, Iron, and War. New York: Holt.

FRANK (PROF. T.). An Economic History of Rome to the End of the Republic. Baltimore: Johns Hopkins Press. 1920. Pp. 310.

[To be reviewed.]

HUANG (HAN LIANG). The Land Tax in China. (Columbia University Studies.) New York: Columbia University Press. London: P. S. King. 6s. net.

HUNT (GUILLARD) and SCOTT (JAMES BROWN). The Debates in the Federal Convention of 1787, which Framed the Constitution of the United States of America. (Carnegie Endowment for International Peace.) New York: Oxford University Press. 1920. Pp. 731.

KEMMERER (E. W.). High Prices and Deflation. Princeton: University Press. 1920. Pp. 82.

[The volume of American business having increased since 1913 by 9 per cent. only (1·3 per cent. in 1918), while the "monetary circulation" increased by 71 per cent. and the proportion of deposits to cash reserves nearly doubled; there has resulted a very general rise of prices of more than 100 per cent.; unsettling relations between debtor and creditor and between occupations unequally responsive to changes in real remuneration. Whereas expansion was favoured by the patriotic impulse to "borrow and buy" and by an artificially low rate of interest, now the process of inflation must be reversed.]

LITMAN (SIMON). Prices and Price Control in Great Britain and the United States during the World War. (Carnegie Endowment for International Peace.) New York: Oxford University Press. 1920. Pp. 331.

NEWELL (F. HAYNES). Water Resources, Present and Future Uses. New Haven: Yale University Press. Pp. 310.

[Water in General, Precipitation, Evaporation, Dams, Uses of Water, River Regulation, are among the headings of chapters.]

SECRIST (HORACE). Statistics in Business. New York: McGraw Hill Book Co. 1920. Pp. 137.

STULL (WILLIAM). The Food Crisis and Americanism. New York: Macmillan Co. Pp. 135.

TEAD (ORDWAY) and METCALF (HENRY C.). Personnel Administration. McGraw Hill Book Co. Pp. 538. 33s. net.

[Relating to Industrial Welfare Work and kindred topics.]

French.

ANSIAUX (MAURICE). Traité d'économie politique. Tome premier. L'organisation économique. Paris: Giard. 1920. Pp. 384.

BARNICH (G.). Principes de Politique Positive d'après Solvay. Brussels: Lebègue. 1919. Pp. 170.

BONDAM (RICHARD). Le Mal Social et les Remèdes. Paris: Société Mutuelle. 1920. Pp. 381. 6 fr. 50.

DECHESNE (LAURENT). Economie Syndicale. Liége: Wykmans. 1920. Pp. 97.

[On the different kinds of syndicates and their methods.]

LACHAPELLE (GEORGES). Les Finances Britanniques. Paris.

SUBERCASEAUX (G.). Le Papier Monnaie. Paris: Giard. 16 fr.

WITHERS (HARTLEY). Qu'est ce que la Monnaie? (La Marché Monétaire Anglais). Traduction par C. et J. Rivière. Paris: Giard. 1920. Pp. 288.

[The value of this translation is enhanced by a preface from the author's pen. Referring to recent experience, Mr. Hartley Withers adds to what he had said about the increase of deposits through loans to customers, that a similar increase may occur when banks purchase War Loan. M. Charles Rist contributes an introduction in which he admits the difficulty of rendering into a foreign language *the wit, charm, ease and simplicity of the original.*]

German.

FÖLDES (PROF. BELA). Finanzwissenschaft. Jena: Gustav Fischer. 1920. Pp. xiv+686. M. 33.

GANSWINDT (A.). Die Wolle und ihre Verarbeitung. Leipzig: A. Hartleben. 1919. Pp. vi+596. M. 12.

[A comprehensive text-book on the Woollen industry. Illustrations.]

GELESNOFF (PROF. W.). Grundzüge der Volkswirtschaftslehre. Leipzig: B. G. Teubner. 1918. Pp. xi+613. M. 10.

[A German translation of a specially prepared edition by a Russian professor of a work regarded in many quarters in Germany as perhaps the best introductory text-book to Economics. The author is a professed Marxist.]

GIESE (KURT). Das Seefrachttarifwesen. Berlin: Julius Springer. 1919. Pp. xvi+379. M. 34.

HERZFELDER (EDMUND). Die volkswirtschaftliche Bilanz und eine neue Theorie der Wechselkurse. Berlin: Julius Springer. 1919. Pp. xvi+486. M. 24.

[Basing his theory of money on Mercer, the author elaborates a new doctrine of a paper currency.]

LIEFMANN (ROBERT). Grundsätze der Volkswirtschaftslehre. Vol. 2. Grundlagen des Tauschverkehrs. Stuttgart: Deutsche Verlagsanstalt. 1919. Pp. xvi+858. M. 35.

MAUNTHER (WILHELM). Der Bolschewismus. Berlin: Kohlhammer. 1920. Pp. 368.

MEERWARTH (RUDOLF). Einleitung in die Wirtschaftsstatistik. Jena: Gustav Fischer. 1920. Pp. vi+329. M. 20.

[A consideration of the statistics of industry, occupations, and output, both industrial and agricultural.]

PRION (DR. W.). Inflation und Geldentwertung. Berlin: Julius Springer. 1919. Pp. 126. M. 5.

[Memorandum on inflation furnished to the German Ministry of Finance. The author advocates greater output and importation as the main agents of deflation.]

SARTORIUS VON WALTERSHAUSEN (PROF. DR. A. FREIHERR). Deutsche Wirtschaftsgeschichte, 1815-1914. Jena: Gustav Fischer. 1920. Pp. x+598. M. 50.

SCHMIDT (PROF. DR. MAX). Die Soziale Organisation der Menschlichen Wirtschaft. Stuttgart: Ferdinand Enke. 1920. Pp. viii+222. M. 18.

[The first volume of a new work on economics based on ethnology.]

SCHMITTMANN (PROF. B.). Führer durch die deutsche Sozialversicherung in ihrer Gestaltung nach dem Kriege. Düsseldorf: L. Schwann. 1920. Pp. xii+191. M. 10.

SOMBART (WERNER). Die deutsche Volkswirtschaft im 19 Jahrhundert und im Anfang der 20 Jahrhunderts. Berlin: Georg Bondi. 1919. Pp. xvi+532.

[A new and enlarged edition of Sombart's well-known study of the Economic development of Germany.]

TYSKA (PROF. CARL VON). Volkswirtschaftliche Theorien (Merkantilismus, Individualismus, Sozialismus, Bolschewismus, Imperialismus). Jena: Gustav Fischer. 1920. Pp. vi+136. 1920. M. 11.

TYSKA (PROF. CARL VON). Grundzüge der Finanzwissenschaft. Jena: Gustav Fischer. 1920. Pp. vii+348. M. 24.

Italian.

CARLI (FILIPPO). L'evoluzione delle rivoluzioni. (Pagine dell'ora.) Milan: Treves. 1920. Pp. 51.

EINAUDI (L). Il problema delle abitazioni. Milan.

FRACCACRETA (ANGELO). La trasformazione degli impiegi di intrapresa. Naples: Pierro. 1920.

LORIA (ACHILLE). Verso la Giustizia Sociale. Vol. I: Nel tramonto di un secolo (1880–1904). Terza edizione riveduta. Milan: Società editrice libraria. 1920. Pp. 614.

PRATO (GIUSEPPE). Fatti e dottrine economiche alla vigilia del 1848. L'Associazione agraria subalpina e Camillo Cavour. Turin: Artigianelli. 1910. Pp. 352.

RICCA-BARBERIS (PROF. M.). La guerra come causa di risoluzione dei contratti agrarii di salariato fisso. Naples: 1917. Pp. 16.

[Reprinted from the Fortnightly *Diritto e Giurisprudenza.*]

RICCA-BARBERIS (PROF. M.). Sulla guerra come caso di forza maggiore nei contratti colla publica Amministrazione. Milan: Società editrice. Pp. 98.

[Reprinted from the *Diritto.*]

RICCI (UMBERTO). Protezionisti e Liberisti Italiani. Bari: Laterza. 6.50 lire.

RIGNANO (EUGENIO). Per una riforma Socialista del diritto Successorio. Bologna: Zanchelli. Pp. 165.